CATALOGUE

OF

RUTGERS COLLEGE

AT

NEW BRUNSWICK, N. J.

1892-'93.

CATALOGUE

OF THE

OFFICERS AND STUDENTS

OF

RUTGERS COLLEGE

AT

NEW BRUNSWICK, N. J.

1892-93.

CHARTERED AS QUEEN'S COLLEGE, A. D. 1766.

PRINTED FOR THE COLLEGE.

1892.

CALENDAR.

1892.

SEPTEMBER 20,	Tuesday: Examinations for admission.
SEPTEMBER 21,	Wednesday: First Term begins. Recitations.
OCTOBER 1,	Saturday: Sloan Entrance Prize Examinations.
OCTOBER 25,	Tuesday: Stated Meeting of the Board of Trustees, 2 P. M.
NOVEMBER 23–28,	Wednesday, 11 A. M.–Monday, 8:40 A. M.: Thanksgiving Recess.
DECEMBER 14–20,	Wednesday–Tuesday: Examinations. First Term ends.
DEC. 20–JAN. 4,	Tuesday–Wednesday, 8:40 A. M.: Christmas Vacation.

1893.

JANUARY 4,	Wednesday: Second Term begins. Recitations.
JANUARY 26,	Day of Prayer for Colleges.
FEBRUARY 22,	Wednesday: Washington's Birthday.
MARCH 7,	Tuesday: Stated Meeting of the Board of Trustees, 2 P. M.
MAR. 29–APR. 4,	Wednesday–Tuesday: Examinations. Second Term ends.
APRIL 4–12,	Tuesday–Wednesday, 8:40 A. M: Spring Vacation.
APRIL 12,	Wednesday: Third Term begins. Recitations.
MAY 22–24,	Monday–Wednesday: Senior Final Examinations.
JUNE 12–16,	Monday–Friday: Examinations of Three Lower Classes.
JUNE 16,	Friday: Reading of Theses by Scientific Seniors, 2 P. M.
JUNE 16, 17,	Friday, 10 A. M., and Saturday: Examinations for admission.
JUNE 18,	Sunday: Baccalaureate Sermon, 7:30 P. M.
JUNE 19,	Monday: Class-Day Exercises, 3 P. M.
JUNE 20,	Tuesday: Commencement Meeting of the Board of Trustees, 10 A. M. Meeting of the Alumni, 10 A. M. Exercises of the Literary Societies, 3:30 P. M. Junior Exhibition, 8 P. M.
JUNE 21,	Wednesday: 127th Annual Commencement, 10 A. M.
JUNE 21–SEPT. 19,	Wednesday–Tuesday: Long Vacation.
SEPTEMBER 19,	Tuesday: Examinations for admission, 10 A. M. Examinations for removal of June Conditions, 10 A. M.
SEPTEMBER 20,	Wednesday: First Term begins. Recitations.
OCTOBER 7,	Saturday: Sloan Entrance Prize Examinations.
OCTOBER 31,	Tuesday: Stated Meeting of the Board of Trustees, 2 P. M.
NOV. 29–DEC. 4,	Wednesday, 11 A. M.–Monday, 8:40 A. M.: Thanksgiving Recess.
DECEMBER 13–19,	Wednesday–Tuesday: Examinations. First Term ends.
DEC. 19–JAN. 3,	Tuesday–Wednesday, 8:40 A. M.: Christmas Vacation.

1894.

JANUARY 3,	Wednesday: Second Term begins. Recitations.

TRUSTEES.

1892-93.

EX-OFFICIO.

His Excellency LEON ABBETT, LL.D., ... Jersey City.
Governor of the State of New Jersey.

Hon. MERCER BEASLEY, LL.D., ... Trenton.
Chief Justice of the State of New Jersey.

Hon. JOHN P. STOCKTON, LL.D , ... Trenton.
Attorney-General of the State of New Jersey.

BY ELECTION.

Names.	*Address.*	*Date of Election.*
Austin Scott, Ph.D., LL.D., *President of the College.*	New Brunswick,	Nov. 25, 1890.
Rev. T. E. Vermilye, D.D., LL.D.,	New York City, 15 West 56th St.	July 24, 1849.
Hon. John Hopper,	Paterson,	July 22, 1851.
Maurice E. Viele, Esq.,	Albany, N. Y.,	July 27, 1853.
Rev. David D. Demarest, D.D., LL.D.,	New Brunswick,	April 13, 1858.
*Hon. Joseph P. Bradley, LL.D.,	Washington, D. C..	June 29, 1858.
Henry L. Janeway, Esq.,	New Brunswick,	April 8, 1862.
Rev. Talbot W. Chambers, D.D., LL.D.,	New York City, 70 West 36th St.	June 17, 1868.
Rev. Joachim Elmendorf, D.D.,	New York City, 35 Mt. Morris Ave.	April 14, 1869.
Rev. Paul D. Van Cleef, D.D.,	Jersey City,	April 14, 1869.
Samuel Sloan, Esq.,	New York City. 26 Exchange Place.	June 20, 1871.
Hon. George C. Ludlow.	New Brunswick,	June 17, 1873.
Hon. William A. Newell, M.D., LL.D.,	Olympia, Wash.,	June 17, 1873.
Rev. Isaac S. Hartley, D.D.,	Utica, N. Y.,	June 17, 1873.
Rev. John Gaston, D.D.,	Passaic,	June 20, 1876.
Hon. Henry W. Bookstaver, LL.D.,	New York City, 14 East 67th St.	June 20, 1876.

*Died January 22d, 1892.

Names.	*Address.*	*Date of Election.*
ROBERT F. BALLANTINE, ESQ.,	Newark,	June 20, 1876.
*REV. ABRAHAM R. VAN NEST, D.D.,	New York City,	Oct. 29, 1878.
WILLIAM CLARK, ESQ.,	Newark,	Oct. 29, 1878.
HON. GEORGE H. SHARPE,	Kingston, N. Y.,	March 4, 1879.
DAVID BINGHAM, ESQ.,	East Orange,	March 7, 1882.
HENRY R. BALDWIN, M.D.,	New Brunswick,	June 17, 1884.
FREDERICK FRELINGHUYSEN, ESQ.,	Newark,	June 16, 1885.
ERNEST J. MILLER, ESQ.,	Albany, N. Y.,	June 16, 1885.
HON. JONATHAN DIXON, LL.D.,	Jersey City,	June 22, 1886.
JAMES NEILSON, ESQ.,	New Brunswick,	June 22, 1886.
REV. RODERICK TERRY, D.D.,	New York City. 169 Madison Ave.	June 22, 1886.
†TUNIS G. BERGEN, PH.D.,	Brooklyn, N. Y., 127 Pierrepont St.	Oct. 25, 1887.
REV. EDWARD B. COE, D.D.,	New York City, 42 West 52d St.	Oct. 25, 1887.
ELBERT B. MONROE, ESQ.,	Southport, Conn.,	Oct. 25, 1887.
REV. JOHN B. DRURY, D.D.,	New Brunswick,	Oct. 25, 1887.
REV. JAMES LE FEVRE,	Middlebush,	June 16, 1888.
FREDERICK J. COLLIER, ESQ.,	Hudson, N. Y.,	June 16, 1891.
ALEXANDER T. VAN NEST, ESQ.,	New York City, 31 West 37th St.	June 16, 1891.
PAUL COOK, ESQ.,	Troy, N. Y.,	June 16, 1891.
DAVID MURRAY, PH.D., LL.D.,	New Brunswick,	March 1, 1892.
HON. GARRET D. W. VROOM,	Trenton,	June 21, 1892.
J. BAYARD KIRKPATRICK, ESQ.,	New Brunswick,	June 21, 1892.

REV. DAVID D. DEMAREST, D.D., LL.D., . . . New Brunswick.
Secretary of the Board.

FREDERICK FRELINGHUYSEN, ESQ., . . . Newark.
Treasurer of the Board.

STATED MEETINGS OF THE BOARD.

Last Tuesday in October, at 2 o'clock P. M.
First Tuesday in March, at 2 o'clock P. M.
Tuesday before Commencement, at 10 o'clock A. M.

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*Died May 31st, 1892.
†Resigned June 21st, 1892. Re-elected October 25th, 1892.

FACULTY.

AUSTIN SCOTT, PH.D., LL.D.,
PRESIDENT,
VOORHEES *Professor of History and Political Science.*
24 Livingston Avenue.

REV. THEODORE SANDFORD DOOLITTLE, D.D., LL.D.,
VICE PRESIDENT,
COLLEGIATE CHURCH *Professor of Rhetoric, Logic and Mental Philosophy.*
Seminary Place.

REV. JACOB COOPER, D.D., D.C.L.,
Professor of the Greek Language and Literature.
108 George Street.

REV. CARL MEYER, D.D.,
Professor of Modern Languages and Literatures.
245 Easton Avenue.

FRANCIS CUYLER VAN DYCK, PH.D.,
Professor of Physics and Experimental Mechanics.
84 College Avenue.

EDWARD ALBERT BOWSER, C.E., LL.D.,
Professor of Mathematics and Engineering.
Queen's Building.

REV. CHARLES EDWARD HART, D.D.,
Professor of the English Language and Literature.
33 Livingston Avenue.

LOUIS BEVIER, JR., PH.D.,
Professor of Modern Languages.
Secretary of the Extension Department.
Bishop Place.

EDGAR SOLOMON SHUMWAY, A.M.,
Professor of the Latin Language and Literature.
208 Redmond Street.

ALFRED ALEXANDER TITSWORTH, M.S., C.E.,
Professor of Graphics and Mathematics.
590 George Street.

JULIUS NELSON, PH.D.,
Professor of Biology.
Adelaide Avenue, Highland Park.

BYRON DAVID HALSTED, SC.D.,
Professor of Botany and Horticulture.
64 College Avenue.

JOHN BERNHARD SMITH, SC.D.,
Professor of Entomology.
81 Easton Avenue.

EDWARD BURNETT VOORHEES, A.M.,
Professor of Agriculture.
83 Easton Avenue.

REV. WILLIAM RANKIN DURYEE, D.D.,
THEODORE FRELINGHUYSEN *Professor of Ethics, Evidences of Christianity and the English Bible.*
17 Union Street.

ALBERT HUNTINGTON CHESTER, E.M., PH.D., SC.D.,
Professor of Chemistry and Mineralogy.
Curator of the Museum.
39 College Avenue.

JOHN JAMES BRERETON, 1ST LIEUTENANT, 24TH U. S. INFANTRY,
Professor of Military Science and Tactics.
Geological Hall.

JOHN CHARLES VAN DYKE, L.H.D.,
Professor of the History of Art.
Sage Library.

ROBERT WOODWORTH PRENTISS, M.S.,
Professor of Mathematics and Astronomy.
96 Easton Avenue.

IRVING STRONG UPSON, A.M.,
Librarian and Registrar.
Secretary of the Faculty.
118 Bayard Street.

EDWARD LUTHER STEVENSON, PH.D.,
Associate Professor of History.
60 College Avenue.

CLARENCE LIVINGSTON SPEYERS, PH.B.,
Associate Professor of Chemistry.
361 George Street.

*EDWARD THORN MIDDLETON, B.S.,
Instructor in Electricity and Physics.

EDWARD LIVINGSTON BARBOUR,
Instructor in Elocution.
210 Townsend Street.

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*Died April 16th, 1892.

GEORGE ANDREWS MITCHELL, M.S.,
Assistant in Chemistry.
Easton Avenue.

WILLIAM EUGENE BREAZEALE, M.M.P.,
Instructor in Mathematics.
96 Easton Avenue.

EUGENE BETTS, B.S.,
Instructor in Electricity and Physics.
91 Bayard Street.

JAMES RICKARBY CAMPBELL, A.M.,
Extension Lecturer in English Literature.
Instructor in English Literature.
Geological Hall.

ALBERT HENRY PEPPER, A.M.,
Instructor in Modern Languages.
345 George Street.

PETER TOWNSEND AUSTEN, PH.D., F.C.S.,
Extension Lecturer in Chemistry.
22 Union Street.

FRANK ROBERTSON VAN HORN, B.S.,
Assistant in Mineralogy.
Bleecker Place.

The names of the Faculty, after that of the President, are arranged in groups. The Professors, according to seniority of appointment; the Librarian and Registrar; the Associate Professors and Instructors, in the order of their respective appointments.

CATALOGUE OF STUDENTS

FOR THE YEAR BEGINNING SEPTEMBER 21, 1892.

GRADUATE STUDENTS.

Names.	*Residences.*	*Rooms.*
ASHER ATKINSON, C.E., Rutgers Scientific School. *Astronomy.*	New Brunswick,	11 Hardenbergh St.
JAMES ALBERT KELSEY, B.S., Iowa Agricultural College. *Botany.*	Duulap, Ia.,	64 College Ave.
FRANK LINCOLN STEVENS, B.L., Hobart College. *Botany.*	Syracuse, N. Y.,	Highland Park.

SENIOR CLASS.

Classical Section.

Names.	*Residences.*	*Rooms.*
HENRY CHARLES CUSSLER,	Catskill, N. Y.,	18 Hertzog Hall.
PAUL WINFRED GEYER,	New York City,	134 Winants Hall.
HENRY HARRINGTON JANEWAY,	New Brunswick,	192 Livingston Ave.
FRANK MALVEN,	Port Jervis, N. Y.,	Delta Phi House.
ROBERT DODGE MERRILL,	New Brunswick,	72 Easton Ave.
ISAAC MESSLER,	White House,	Delta U. House.
LOUIS HOWELL METTLER,	East Millstone,	Delta Phi House.
BURTON STEARNS PHILBROOK,	Jersey City,	147 College Ave.
FRANCIS BAIRD SANFORD,	Warwick, N. Y.,	61 Winants Hall.
ALBERT HENRY SCHLIEDER,	West Leyden, N. Y.,	62 Winants Hall.
HOBART EARL STUDLEY,	Hudson, N. Y.,	19 Hertzog Hall.
CHARLES EDWARD TINDELL,	New Brunswick,	214 Townsend St.
ISAAC J. VAN HEE,	Pultneyville, N. Y.,	21 Hertzog Hall.
FRANK M. VAN ORDEN,	Spring Valley, N. Y.,	Delta U. House.
ELLIS ROBERT WOODRUFF,	New Brunswick,	Delta U. House.

Scientific Section.

Names.	*Residences.*	*Rooms.*
Reginald Briant Allen,	Medford,	Chi Psi Lodge.
Charles Storr Chamberlain,	Madanapalle, India,	Delta U. House.
Horace Munson Decker,	Newark,	Newark.
Philip Bevier Hasbrouck, Jr.,	Libertyville, N. Y.,	Chi Psi Lodge.
Joseph Allen Headley,	Union, Union Co.,	136 Winants Hall.
James Wallace Higgins,	Roselle,	90 Winants Hall.
Philip Lindsley,	Raritan,	66 Winants Hall.
Charles Edgar Lovejoy,	Elizabeth,	Elizabeth.
Richard Swann Lull,	Trenton,	Chi Psi Lodge.
William Gelon McKnight,	Washington, D. C.,	20 Winants Hall.
Daniel Herbert McLaury,	New Brunswick,	342 George St.
Frank Wilbur Remsen,	Blackwell's Mills,	Hertzog Hall.
Ezra Fred Scattergood,	Columbus,	90 Winants Hall.
Harry Noe Selvage,	Summit,	Chi Psi Lodge.
*Clifford Stockton Shaw,	Hyde Park, N. Y.	
Richard Storms,	Woodcliff,	135 Winants Hall.
Vreeland Tompkins,	Jersey City,	Delta Phi House.
Henry Francis Twitchell,	Newark,	Chi Psi Lodge.
Charles Henry Earl Utter,	Newark,	Newark.
Herbert Metlar Waldron,	New Brunswick,	417 George St.
Howard Van Deventer Waldron,	New Brunswick,	417 George St.

* Died February 22d, 1892.

JUNIOR CLASS.

Classical Section.

Names.	*Residences.*	*Rooms.*
Frederick Jacob Barny,	Bardonia, N. Y.,	33 Hertzog Hall.
William Edgar Compton,	New Brunswick,	204 Somerset St.
Franklin Richmond Cushman,	Glocester, R. I.,	Franklin Park.
Holmes Van Mater Dennis, Jr.,	Freehold,	102 Winants Hall.
Charles Morison Dixon,	New Brunswick,	87 New St.
Arthur Eugene Field,	New Marlboro, Mass.,	45 Hertzog Hall.
Frederick Christopher Grant,	Plainfield,	Plainfield.
Frederick Nelson Jacobus,	Newark,	Newark.
William Botsford Judd,	Cranford,	Chi Psi Lodge.
Edgar Ireland McCully,	Little Falls,	25 Hertzog Hall.
Henry Miller,	New Brunswick,	117 Throop Ave
Otto Leopold Frederick Mohn,	Beverly,	Delta Phi House.
Edmund Philip Nischwitz,	Warrenville,	130 Winants Hall.
John Augustus Sarles,	Stelton,	Stelton.
Philip Cook Thomas,	New Brunswick,	48 Lee Ave.
John Henry Thompson,	New Brunswick,	Delta U. House.
Irving S. Tompkins,	Boonton,	42 Guilden St.
Francis Cuyler Van Dyck, Jr.,	New Brunswick,	84 College Ave.

Scientific Section.

Names.	*Residences.*	*Rooms.*
LEWIS AUGUSTUS ADAMS,	Lower Bank,	College Farm.
CHARLES FERDINAND BERGER,	Newark,	130 Winants Hall.
BERGEN DAVIS,	White House Station,	Delta U. House.
HOWARD DE MOTT,	Hackensack,	Delta U. House.
JOHN VAN NOSTRAND DORR,	Orange,	Zeta Psi House.
ABIJAH CHARLES FOX,	Hurffville,	130 Winants Hall.
MOUNT DE BOW GRAVATT,	Clarksburgh,	College Farm.
DANIEL HAND,	Cape May C. H.,	118 Winants Hall.
HOWARD GODFREY HARRIS,	Bakersville,	54 New St.
RAYMOND STEELE HARRISON,	Verona,	183 New St.
WILLIAM AMBROSE KINSEY,	Newark,	Newark.
DAVID LAYTON,	Liberty Corner,	66 Winants Hall.
ISAAC ARTHUR LEE,	New Brunswick,	162 Somerset St.
CHARLES TOWNSEND LETSON,	Stelton,	Stelton.
JAMES MORRIS MCCLOSKEY,	New Brunswick,	437 George St.
WARREN SMITH MITCHELL,	Vineland,	College Farm.
THOMAS FRENCH RUSSUM,	Elizabeth,	Elizabeth.
YOSHIMARO TAKATSUJI,	New Brunswick,	90 Albany St.
JAMES SCOTT THOMPSON,	Morristown,	114 Bayard St.
GEORGE EDWARD TRACY, JR.,	Bayonne City,	108 Winants Hall.
FRED BENEDICT VAN BRAKLE,	Keyport,	16 Winants Hall.
GEORGE MOREHOUSE VAN DUZER,	Warwick, N. Y.,	102 Winants Hall.
LEONARD LOVEJOY WETMORE,	Englewood,	Zeta Psi House.
MARSHALL WILLIAMS,	Blackwood,	114 Bayard St.
JOSEPH JOHNSON YATES, JR.,	Elizabeth,	Elizabeth.

SOPHOMORE CLASS.

Classical Section.

Names.	*Residences.*	*Rooms.*
WARD GAMEWELL BERRY,	Hackensack,	55 Winants Hall.
DAVID CAHART,	Rahway,	Rahway.
JOHN HAMILTON POTTER CONOVER,	New Brunswick,	218 Redmond St.
FRANK CORNELL EATON,	Ellenville, N. Y.,	116 Winants Hall.
CHARLES WESLEY GULICK,	New Brunswick,	127 Bayard St.
HENRY UNDERHILL HART,	Neshanic,	81 Winants Hall.
GEORGE JACOB JANEWAY,	New Brunswick,	192 Livingston Ave.
FREDERICK WILLIAM JOHANKNECHT,	Jamaica, N. Y.,	155 Winants Hall.
DWIGHT CHAPIN LEFFERTS,	Flatbush, N. Y.,	Zeta Psi House.
JOHN CONANT LOUD,	Brooklyn, N. Y.,	40 Winants Hall.
GEORGE SULLIVAN LUDLOW,	New Brunswick,	95 Bayard St.
ROBERT ELLISON SOARE,	Walden, N. Y.,	21 Hardenbergh St.
JOHN PROVOST STOUT,	Raritan,	87 Winants Hall.
RUSSELL VAN ARSDALE,	Paterson,	9 Hertzog Hall.
WARREN CLARK VAN SLYKE,	Kingston, N. Y.,	40 Winants Hall.
HERMAN CHARLES WEBER,	Brooklyn, N. Y.,	55 Winants Hall.

Scientific Section.

Names.	*Residences.*	*Rooms.*
Louis Derby Ayres,	Bergen Point,	Chi Psi Lodge.
Philip Sheridan Bailey,	Toms River.	95 Bayard St.
John Garretson Blackwell,	Franklin Park,	95 Bayard St.
Eugene Bogert,	Harrington,	Delta U. House.
William Ryall Burtis,	Freehold,	17 Winants Hall.
John Henry Carnes,	Jersey City,	124 Bayard St.
Abram Schuyler Clark,	New Brunswick,	13 Kirkpatrick St.
Edgar Stanley Conklin,	Pekin, Ill.,	Delta U. House.
Charles E. Conover,	Manalapan,	College Farm.
Albert Henry Darnell,	Mount Holly,	Zeta Psi House.
Charles Meirs Denise,	Allentown,	Chi Psi Lodge.
George Ray Deshler,	New Brunswick,	116 Hamilton St.
Frank Vreeland Dobbins,	Rahway,	Rahway.
Frederick Williams Ells,	Cranford,	Cranford.
Grinfill Harrison English,	New Brunswick,	121 Paterson St.
John Mulford Enright,	Freehold,	Chi Psi Lodge.
Amos Haines Flake,	Medford,	117 Bayard St.
Frank Kingsley Grant,	Schoharie, N. Y.,	109 Winants Hall.
Henry Seeley Hampton,	Millville,	Chi Psi Lodge.
James Kirtland Howard,	New Brunswick,	151 Somerset St.
Irwin White Howell,	New Brunswick,	63 Paterson St.
Eugene Lindsley Hurley,	Rahway,	Rahway.
Stanly Woodruff Jones,	Rahway,	Rahway.
Robert Ballantine Littell,	Setauket, L. I.,	87 Winants Hall.
Gabriel Ludlow,	New Brunswick,	95 Bayard St.
James Arthur Mandeville,	Newark,	Newark.
Eugene Augustus Meacham,	New Brunswick,	174 Easton Ave.
Charles Johnson Negus,	Jersey City,	Zeta Psi House.
Franklin Pleasants Noble,	Mendham,	113 Winants Hall.
William O'Connor,	Paterson,	39 Albany St.
Robert Kitching Painter,	New Brunswick,	5 Union St.
William Frank Parker,	New Brunswick,	154 Hamilton St.
Robert Stevens Parsons,	Paterson,	Delta U. House.
Frederick Harrison Pierson, Jr.,	Elizabeth,	Elizabeth.
Waldo Berth Rosencrantz,	Cranford,	Cranford.
Clarkson Runyon, Jr.,	New Brunswick,	14 Union St.
Irving Emmons Salmon,	Boonton,	113 Winants Hall.
George F. Scull, Jr.,	Atlantic City,	118 Bayard St.
William Van Bergen Van Dyck,	New Brunswick,	84 College Ave.
Alexander Brokaw Way,	New Brunswick,	147 Bayard St.
Charles Augustus Weckerly,	Atlantic City,	137 Winants Hall.

FRESHMAN CLASS.

Classical Section.

Names.	*Residences.*	*Rooms,*
HENRY WELLS BRINK,	Katsbaan, N. Y.,	24 Hertzog Hall.
WILLARD CONGER,	New Brunswick,	83 Commercial Ave.
LANE COOPER,	New Brunswick,	108 George St.
JOHN ALEXANDER CORSON,	New York City,	43 Hertzog Hall.
HORACE JACKSON CRAIG,	Churchville, Penn.,	63 Winants Hall.
FREDERICK WILLIAM DE HART,	Raritan,	78 Winants Hall.
ALFRED DRURY,	New Brunswick,	88 Livingston Ave.
JOHN LAWRENCE DURYEE,	Newark,	43 Winants Hall.
GEORGE SMOCK HOBART,	Marlboro,	77 Winants Hall.
ARTHUR FREDERICK JENNINGS,	Plainfield,	Plainfield.
JOHN EDWARD JENNINGS,	New Brunswick,	281 Hamilton St.
CHARLES GILBERT MALLERY,	Fishkill-on-Hudson, N. Y.,	24 Hertzog Hall.
EDWIN CORWIN MCKEAG,	New Brunswick,	85 Albany St.
EDWARD JAY MEEKER,	Succasunna,	19 Hertzog Hall.
LOUIS PROVOST PEEKE,	East Millstone,	East Millstone.
CHARLES SCUDDER POOL,	Somerville,	124 Winants Hall.
EDWARD TAYLOR RANDOLPH,	New Brunswick,	152 Paterson St.
WILLIAM ADDISON RANNEY,	Cortland, N. Y.,	42 Guilden St.
GEORGE MALVEN RIDGWAY,	Trenton,	Delta Phi House.
WALTER AIKMAN SHERWOOD,	Jersey City,	Delta Phi House.
FRANCIS EDWARD TILTON,	Holmdel,	22 Hertzog Hall.
CHARLES WILLARD VOORHEES,	Middlebush,	Middlebush.
JOHN BROWNLEE VOORHEES,	New Brunswick,	Highland Park.

Scientific Section.

Names.	*Residences.*	*Rooms.*
Joseph George Baier,	New Brunswick,	195 Neilson St.
Frederick Charles Baum,	Freehold,	9 Winants Hall.
Frank Thorn Blake,	Madison,	58 Winants Hall.
Stephen Duryea Bogardus,	Montrose, N. Y.,	132 Winants Hall.
William Cook Bryan,	Toms River,	144 Welton St.
Wesley Warner Burden,	New York City,	63 Winants Hall.
Elvin Carrens Burtis,	Asbury Park,	2 Winants Hall.
Clarence Woodruff Byram,	Morristown,	12 Winants Hall.
William Pierson Carter.	Springfield,	121 Winants Hall.
Walter Knickerbocker Cavileer,	Lower Bank,	110 Winants Hall.
Arthur Morgan Clark,	New Brunswick,	89 Bayard St.
Edwin Skellinger Cooper,	Asbury Park,	121 Winants Hall.
George Dunn Cornish,	Gillette,	34 Winants Hall.
Frederick Newton Crowell,	South Orange,	107 Somerset St.
Howard Nott Doughty,	Englewood,	30 Winants Hall.
Paul Kirk Douglas,	Newark,	Newark.
Isaac Nevius Enyard,	New Brunswick,	105 Albany St.
Irwin Fisher,	Middlebush,	Middlebush.
Erkuries Beatty Fithian,	Bridgeton,	140 Winants Hall.
Alanson McDowell Gray,	Elizabeth,	Elizabeth.
John Lathrop Gray,	Elizabeth,	Elizabeth.
Alfred Cookman Gregory,	Trenton,	Trenton.
Christopher Arthur Hibler,	Morristown,	12 Winants Hall.
Spencer Littlefield Higgins,	Roselle,	Roselle.
William Rogers Hogg,	Toms River,	144 Welton St.
John Benjamin Holding, Jr.,	Bayonne City,	Bayonne City.
Walter Thomas Hubbard,	Asbury Park,	9 Winants Hall.
John Finney Hunt,	Stockton,	52 Oliver St.
Lester Inglis,	Paterson,	73 Winants Hall.
George Elbert Jackson,	Brooklyn, N. Y.,	117 Winants Hall.
William Isaac Ker,	Asbury Park,	58 Winants Hall.
Andy Frederick Kilmer,	New Brunswick,	17 Codwise Ave.
Thomas Herbert Letson,	New Brunswick,	Voorhees Station.
Luke De Hart Lindley,	New Brunswick,	24 Liberty St.
Herbert Arthur Luster,	Elizabeth,	Elizabeth.
Frank Conover Manley,	New Brunswick,	12 Easton Ave.
Frank Leaming Manning,	Red Bank,	11 Winants Hall.
Henry Marelli,	Paterson,	34 Winants Hall.

Names.	*Residences.*	*Rooms.*
Bartholomew Francis Monaghan,	Newark,	Newark.
Livingston Pearne Moore,	Elizabeth,	Elizabeth.
Daniel Morrison,	New Brunswick,	151 French St.
George Sheldon Mower,	Katsbaan, N. Y.,	College Farm.
Robert Carter Nicholas,	New Brunswick,	Clifton Ave.
James Bryan Noe,	Elizabeth,	Elizabeth.
George Winfield Nuttman,	Newark,	2 Wiuants Hall.
Cullen Warner Parmelee,	Ocean Grove,	121 Winants Hall.
Robert Matthews Pierson,	Elizabeth,	Elizabeth.
John Francis Post, Jr.,	Riverdale,	14 Hertzog Hall.
Charles Anson Poulson,	Mendham,	34 Wiuants Hall.
Irving Lee Reed,	Atlantic Highlands,	147 Bayard St.
Allison Burton Roome,	Butler,	105 Winants Hall.
Paul Schureman,	Toms River,	114 Bayard St.
William Unger Small,	Newark,	Newark.
Edgar de Mott Stryker,	Raritan,	124 Winants Hall.
Arthur Henry Temple,	Boonton,	113 Winants Hall.
Alfred Preston Theobald,	New Bruuswick,	339 George St.
Henry De Witt Tremper,	Kingston, N. Y.,	Chi Psi Lodge.
Mathias Everett Turner,	Rahway,	Rahway,
William Vanderbeek Van Blarcom,	Newark,	Newark.
Garrett Van Cleve,	Paterson,	73 Winants Hall.
Howard Edward Van Ness,	Little Falls,	105 Winants Hall.
Robert Bradshaw Whitaker,	New Brunswick,	57 Livingston Ave.
Howard Edmund White,	Hammonton,	141 Welton St.
Frank Harris Whitenack,	Mine Brook,	66 Winants Hall.
Miller Royal Whitenack,	Newark,	Newark.
John Alfred Wilson,	Dunellen,	29 Winants Hall.
Gustav Frederick Wittig,	New Brunswick,	16 Hardenbergh St.
Wilfred Roberts Woodward,	Trenton Juucton,	34 Schureman St.
Herbert Wyckoff,	Freehold,	17 Winants Hall.
Jesse Frederick Zabriskie,	Cherry Hill,	110 Winants Hall.

SPECIAL STUDENTS.

NOT CANDIDATES FOR A DEGREE.

Names.	*Residences.*	*Rooms.*
HAMILTON SCRYMSER BATTIN, *Chemistry.*	Elizabeth,	Elizabeth.
ALBERT LEON BEYLIKS, *Sciences.*	Tenafly,	105 Albany St.
ALBERT HUNTINGTON CHESTER, JR , *Modern Languages.*	New Brunswick,	39 College Ave.
HORACE STILLMAN CHESTER, *Chemistry.*	Buffalo, N. Y.,	39 College Ave.
ISAAC CHRISTMAN, *Sciences.*	Camden,	34 Schureman St.
RICHARD STEVENS CONOVER, JR., *Agriculture.*	New Brunswick,	218 Redmond St.
MAURITZ FRED H. DE HAAS, *Sciences.*	Brooklyn, N. Y.,	137 Winants Hall.
JOSEPH MILLSPAUGH FOWLER, *Classics.*	Walden, N. Y.,	Delta U. House.
CHARLES SEWARD JOHNSON, *Classics.*	New Brunswick,	214 Hale St.
JOSEPH AUGUSTUS JOHNSTON. *Classics.*	Flatbush, N. Y.,	43 Hertzog Hall.
GEORGE BROWN SCHENCK. *Classics.*	Neshanic,	118 Winants Hall.
AUGUSTINE DAWSON SELBY, *Botany.*	Columbus, O..	64 College Ave.
HENRY JULIUS AUGUSTUS SPELKER, *Classics.*	Wynantskill, N. Y.,	13 Hardenbergh St.
WILLIAM HARVEY STILSON, *Chemistry.*	Bayonne City,	Zeta Psi House.
THOMAS MORRIS STRONG, *Classics.*	Flatbush, N. Y.,	Zeta Psi House.
MICHAEL JOSEPH TIERNEY, *Chemistry.*	East Millstone,	East Millstone.
DAVID HIGGINS TOWNLEY, *Sciences.*	Elizabeth,	Zeta Psi House.
THEODORE WILLIAM RUDOLPH VAN HET LOO,	Paterson,	76 Winants Hall.
HENRY MACKENZIE WHITAKER, *Sciences.*	New Brunswick,	57 Livingston Ave.
JOHN WILLS, *Sciences.*	Stanhope,	81 Winants Hall.

SUMMARY.

	Classical.	Scientific.	Total.
Graduate Students	0	3	3
Seniors	15	20	35
Juniors	18	25	43
Sophomores	16	41	57
Freshmen	23	70	93
Special Students	8	12	20
Totals	80	171	251

CLASSICAL DEPARTMENT.

1. ADMISSION.

Examinations for admission to the College will be held on the Friday and Saturday preceding Commencement week, June 16th and 17th, 1893, beginning at 10 o'clock Friday morning. Applicants for admission may also be examined on Tuesday, September 19th, at 10 A. M. Students are advised to be present for examination in June.

From certain preparatory schools of approved standing, students are admitted upon the Principal's certificate.

Examinations for admission are both written and oral.

Candidates for admission to advanced classes must sustain a satisfactory examination upon the subjects previously studied by the class which they propose to enter, as well as upon those required for admission into the Freshman Class. Under this regulation, students are admitted at any time during the collegiate year.

Students who desire to pursue selected branches of study may do so, if properly prepared to pursue them with the regular classes. Special provision is made for such students in the Scientific Department. All such students are required to take examinations with the class with which they study, and sufficient work must be taken to occupy fully the student's time.

It is expected that students who present themselves will

be prepared, by careful study and by reviews of their work, to pass successfully a thorough examination on the subjects which are required.

Only such students are admitted with conditions as are, in the opinion of the examiners, so nearly prepared as to be able to make up all deficiencies during the first two months of the term, meanwhile maintaining a good standing in their class.

Conditioned students will have an opportunity given them to remove their entrance conditions as early as possible in the first term. It is expected that all entrance conditions will be made up before the Thanksgiving recess.

SLOAN PRIZES FOR THE BEST ENTRANCE EXAMINATIONS, CLASSICAL COURSE.

A First Prize of One Hundred Dollars in cash and a Scholarship yielding $300, to apply on term bills; and a Second Prize of Fifty Dollars in cash and a Scholarship yielding $300, to apply on term bills, established in 1883 by Hon. Samuel Sloan, of New York, a member of the Board of Trustees, will be awarded to the students who shall be adjudged by the examiners to have passed the best examination among the applicants for admission to the Freshman Class, in 1893. The cash prizes will be awarded, one-half at matriculation and one-half at the end of the second term of the Freshman year. The scholarship funds will be applied to cancel term bills for tuition during the course, and will be forfeited if the student's general average on the work of the year falls below 80 on a scale of 100.

REQUIREMENTS FOR ADMISSION.

The following, or a full equivalent, are the requirements for admission to the Freshman Class:

1. LATIN.

Allen and Greenough's, or Andrews and Stoddard's, or Gildersleeve's, or Harkness' Latin Grammar, including the principles of Prosody.

Jones' Latin Composition, or the first forty-four sections of Arnold's Latin Prose Composition, or an equivalent.

Cæsar, four Books of the Gallic War.

Sallust, Catiline.

Vergil, Æneid, six Books.

Cicero, seven orations, of which it is recommended that the orations for the Poet Archias, on the Manilian Law, and for Marcellus, shall be three.

The Fifth Book of Cæsar's Gallic War may be substituted for Cicero's oration for Marcellus.

Questions on the subject-matter, the history, the geography and the mythology involved in the Latin read. *Students will be tested in reading "at sight" easy Latin (e. g., Cæsar, Sallust, Cicero, Quintus Curtius); and a map of Italy, to be drawn from memory, at the examination, will be required, together with familiarity with the classical geography of Gaul and Spain; and Smith's Smaller History of Rome (or an equivalent history of this period) to the time of the Empire.*

In preparing in Latin, the student should give close attention to the regular prose constructions of the language, and especially, in reading Cæsar or Sallust, to the forms of "indirect discourse." He should be thoroughly drilled in the use and the force of the moods and tenses, the consecution of tenses, the gerundive construction, etc., and should be taught to *analyze the sentence into subject and predicate, and the words, phrases or clauses which modify the subject and the predicate.* There should be frequent "Anticipatory Parsing."

The student should have as much exercise in writing Latin as possible. From the first, exercises in rendering English into Latin, both *orally* and in writing, are earnestly recommended.

The system of pronunciation followed is the Roman. For correctness of pronunciation, the rules of quantity are necessary to those who have not been thoroughly accustomed to the correct sound of the Latin words.

2. GREEK.

Hadley's or Goodwin's Greek Grammar, including the principles of Prosody, and of *Accentuation*.

Xenophon's Anabasis, three books, or an equal amount of Goodwin's Greek Reader.

Whiton's First Greek Book, entire; and Jones' Exercises in Greek Composition or Alinson's Greek Prose, entire.

Homer, The Iliad, three books (omitting the catalogue of the ships).

Questions on the subject-matter, etc., as above.

Greek History will be required, Smith's Smaller History of Greece, or an equivalent; students will be tested at the entrance examinations in reading at sight easy Greek prose; and a map of Greece, with a good knowledge of the geography of the Greek Islands and of Asia Minor, will be required.

The applicant must be thoroughly familiar with the leading principles of the whole Grammar, including accent, quantity and prosody.

In pronunciation, the accent must be followed in prose; but in poetry, regard will be had only to quantity.

Work done in reading other authors than those named in the requirements will be accepted, provided the pupil can pass upon a *full* equivalent.

3. MATHEMATICS.

Arithmetic complete, including the Metric System.

Algebra through Quadratic Equations, including Radicals; or the first fifteen chapters of Bowser's College Algebra.

Plane Geometry, four books of Bowser's, or an equivalent, *including Exercises*.

Careful attention should be given to the *exercises* in Geometry, as they greatly aid in acquiring readiness in geometrical reasoning.

Attention is especially called to the Metric System of Weights and Measures, a practical knowledge of which is indispensable, since it is used in the class-room; and to the *essential importance of a thorough preparation in the elements of Algebra*, on which subsequent success in Mathematics so much depends. The mistake is often made of passing too hurriedly over the first few chapters of Algebra. The whole book will be more quickly and surely mastered if the first part be studied slowly and thoroughly, with frequent reviews.

In preparing in Mathematics, the student should acquire a proficiency and readiness in the application of the principles; and to that end the careful solution of numerous and varied examples is earnestly recommended. It is also desirable to cultivate habits of neatness and order in the presentation of work on the blackboard or on paper.

4. THE ENGLISH BRANCHES.

History of the United States (Johnston's History of the United States).

Candidates for admission are examined in the History of the United States, with special reference to the colonization of the several States, the forms of government which existed previous to the War for Independence, the causes and principal events of that war, the period of the Confederation, the establishment of the Federal Constitution, with the general history subsequent to that event.

Students often lack thorough or recent preparation in this subject. A more accurate knowledge of American History has become necessary as preliminary to the systematic instruction now given on the duties and relations of American citizenship.

Geography.

English Grammar.

Spelling.

A short English Essay is also required, to be written at the examination, on some theme drawn from books announced in advance; the essay to be correct in spelling, punctuation, division into paragraphs, grammar and expression. In June and September, 1893, the themes will be drawn from these books, which all students who apply for admission then should have read carefully: Scott's *Lady of the Lake;* Shakespeare's *Winter's Tale;* Irving's *Sketch Book;* Tennyson's *Idylls.*

In 1894, students should be familiar with Shakespeare's *Julius Cæsar* and *Merchant of Venice;* Scott's *Lady of the Lake;* Longfellow's *Courtship of Miles Standish;* Scott's *Ivanhoe;* Kingsley's *Westward Ho!*

5. MODERN LANGUAGES.

In June, 1893, and thereafter, the elements of German Grammar will be required.

2. COURSE OF INSTRUCTION.

The Course of Instruction occupies four years, with three terms in each year.

The following is a scheme of the studies of the course. While it is subject to change in details, it exhibits the amount of work required of students during the four years, and indicates to candidates for advanced standing the equivalents which will be accepted from them. All the studies of the Freshman and Sophomore years are prescribed, and are intended to be of such a character as will furnish the sound basis of a liberal education, whatever profession or career is subsequently chosen. During the Junior and Senior years, certain subjects are prescribed for all candidates for a degree, while other subjects are arranged in elective courses.

The arrangement of these courses is a result of a recent careful revision of the curriculum, and is designed not only to carry further the general training of the student in the liberal arts, but also to promote his purpose to fit himself for the special occupation or profession which he may afterward follow.

The student makes his choice at the end of the Sophomore year, and the course then chosen is to be pursued in connection with the prescribed studies throughout the last two years.

FRESHMAN CLASS.

Exercises during each term of the year in Composition, Declamation and Extempore Speaking. Bible-Class and Sermon, Sunday morning.

FIRST TERM, Thirteen Weeks.

	Hours a week.
1. Latin.—Livy; Oral and Written Composition	4
2. Greek.—Homer's Odyssey; Herodotus; Hesiod; Alinson's Greek Prose Composition, Part III	4
3. Mathematics.—Bowser's Algebra, from Chapter XVII	4
4. English Literature.—History of the English Language	2
5. Physiology.—Comparative Biology; Lectures; Physiology, Martin..	1
6. Civics	1

SECOND TERM, Thirteen Weeks.

1. Latin.—Cicero, De Amicitia; Horace, Odes; Composition; Latin Synonymes	5
2. Greek.—Xenophon's Memorabilia; Pausanias; Anacreon; Sidgwick's Greek Prose Composition	5
3. Mathematics.—Bowser's Algebra, completed; Bowser's Geometry....	3
4. Rhetoric.—Clark; Lectures; Essays	2
5. Zoology.—Comparative Anatomy; Lectures; Physiology, Martin.....	1

THIRD TERM, Ten Weeks.

1. Latin.—Horace; Odes, Epodes, Ars Poetica	4
2. Greek.—Lucian; Demosthenes' Olynthiacs; Buchholz's Greek Anthology, Part I.; Sidgwick's Greek Prose Composition	4
3. Mathematics.—Bowser's Geometry, completed	4
4. Botany.—Gray	2
5. English Literature.—History of English Literature, Meiklejohn....	2

SOPHOMORE CLASS.

Exercises throughout the year in Composition, Declamation and Extempore Speaking. Bible-Class and Sermon, Sunday morning.

FIRST TERM.

	Hours a week.
1. LATIN.—Terence, Andria; Pliny's Letters	3
2. GREEK.—Plato's Apology and Crito; Euripides' Medea; Extracts from Macaulay's Essays, and Coleridge's Aids to Reflection, to be rendered into Greek	3
3. INORGANIC CHEMISTRY.—Lectures, with Experiments, Remsen	4
4. MATHEMATICS.—Plane and Spherical Trigonometry, Bowser	3
5. GERMAN.—Whitney's Brief German Grammar	3

SECOND TERM.

1. LATIN.—Tacitus, Selections from Annales and Historiae	3
2. GREEK.—Thucydides, Narrative Extracts; Sophocles' Œdipus Rex; Extracts from Motley and Prescott, to be translated into Greek	3
3. MATHEMATICS.—Bowser's Analytic Geometry	3
4. HISTORY.—Fisher	4
5. GERMAN.—German Reader	3

THIRD TERM.

1. LATIN.—Terence or Plautus; Catullus.	3
2. GREEK.—Plato's Protagoras; Aristophanes' Birds, Knights; Extracts from Irving's Sketch Book, and The Spectator, for translation	3
3. MATHEMATICS.—Bowser's Analytic Geometry	3
4. HISTORY.—Fisher	4
5. GERMAN.—Classic Authors	3

JUNIOR CLASS.

Exercises throughout the year in Composition, Original Declamation and Extempore Speaking. Bible-Class and Sermon, Sunday morning.

PRESCRIBED STUDIES.

FIRST TERM. Hours a week.

1. French.—Whitney's Brief French Grammar 3
2. Mental Philosophy.—Porter's Elements of Intellectual Philosophy, and Lectures; Essays on Metaphysical Subjects 5
3. Physics.—Ganot; Lectures 2

SECOND TERM.

1. French.—Keetel's Analytical French Reader 3
2. Logic.—Jevons-Hill's Logic 2
3. Physics.—Ganot; Lectures 2
4. Astronomy.—Young's Elements 3

THIRD TERM.

1. French.—Classic Authors 3
2. Physics.—Ganot; Lectures 2
3. History of Civilization.—Guizot; Essays 5

SENIOR CLASS.

Exercises throughout the year in Composition, Original Declamation and Extempore Speaking. Bible-Class and Sermon, Sunday morning.

PRESCRIBED STUDIES.

FIRST TERM.

1. Political Economy.—Walker and Perry; Lectures; Essays 4
2. Geology.—Geikie 3
3. Fine Arts.—Lectures 1

SECOND TERM.

1. Constitutional Law.—Cooley; Lectures; Essays 4
2. Ethics.—English Bible; Manual on Evidences, Row 3
3. Fine Arts.—Lectures 1

THIRD TERM.

1. International Law.—Lectures 4
2. Practical Ethics.—Hopkins' Law of Love 2
3. Mineralogy 2
4. Fine Arts.—Lectures 1

JUNIOR AND SENIOR CLASSES.

ELECTIVE STUDIES.

The choice of an Elective Course, two subjects, is made at the end of the Sophomore year, and these subjects are pursued throughout the Junior and Senior years in addition to the prescribed schedule of studies.

I. Courses of Elective Studies.

1. Course in Ancient Languages—Latin and Greek.
2. Course in Modern Languages—English, French and German.
3. Course in Mathematics and Science.
4. Course in History and Philosophy.

The recitation schedule will be so arranged that students may elect, instead of one of the above courses, any one of the following:

II. Groups of Elective Studies.

1. Latin and English-French.
2. Latin and Mathematics.
3. Latin and Science.
4. Latin and History.
5. Latin and Philosophy.
6. Greek and English-French.
7. Greek and German.
8. Greek and Science.
9. Greek and Philosophy.
10. English-French and Mathematics.
11. English-French and History.
12. German and Mathematics.
13. German and Science.
14. German and History.
15. German and Philosophy.
16. Mathematics and Philosophy.
17. Science and History.

Students choosing Science may still further elect to pursue—

1. Chemistry during the Junior year, with Physics during the Senior year.
2. Chemistry during the Junior year, with Biology during the Senior year.
3. Chemistry during the Junior year, with Geology and Mineralogy during the Senior year.
4. Biology during the Junior year, with Botany and Entomology during the Senior year.

Students electing the Course in Modern Languages will pursue German throughout the Junior and Senior years, English throughout the Junior year, and French throughout the Senior year.

JUNIOR CLASS.

ELECTIVE STUDIES.

1. Course in Ancient Languages—Latin and Greek throughout the year.

	Hours a week.
FIRST TERM.	
1. LATIN.—Roman Oratory; Selections from the Rhetorical Essays of Cicero, and from Quintilian	3
2. GREEK.—Demosthenes and Æschines on the Crown; Æschylus' Persae; Euclid; Wilkins' Greek Prose Composition; Jelf's Greek Grammar, Vol. II.; Syntax; Extracts from Pilgrim's Progress, for translation	3
SECOND TERM.	
1. LATIN.—Roman Philosophy; Selections from the Philosophical Essays of Cicero, and from Seneca and Lucretius.	3
2. GREEK.—Thucydides, Speeches; Aristophanes' Clouds, Frogs, Wasps; Extracts from Swift, Sterne, Thackeray and Montaigne, for translation	3
THIRD TERM.	
1. LATIN.—Roman Law; Antejustinianian text; Bruns, *Fontes Iuris Romani;* Huschke, *Iurisprudentiae Anteiustinianae Quae Supersunt;* Historical Development of the System	3
2. GREEK.—Plato, Republic; Pindar; Chrysostom, Homilies; Extracts from Butler's Analogy, and Pascal, Pensees, for translation	3

SENIOR CLASS.

ELECTIVE STUDIES.

1. Course in Ancient Languages—Latin and Greek throughout the year.

FIRST TERM.	
1. LATIN.—Roman Law under the Justinianian Redaction; The Institutes of Justinian, edited as a Recension of the Institutes of Gaius by T. E. Holland; Outlines of Roman Law, Morey	4
2. GREEK.—Aristotle, Organon; Parmenides; Xenophanes; Christian Hymns; Extracts from the Logical works of Mill and Hamilton, for translation	4
SECOND TERM.	
1. LATIN.—Roman Law; The Digest; Introduction to Justinian's Digest, Roby; Selected Titles, Holland and Shadwell; Christian Latin; Latin Fathers and Hymns	4
2. GREEK.—Aristotle, Metaphysics; Plato, Parmenides; Theocritus, Sappho; Greek Epigrams; Menander; Extracts from Kant's Kritik, and Schopenhauer's Die Welt als Wille und Vorstellung, for translation into Greek	4
THIRD TERM.	
1. LATIN.—Roman Topography and Archæology; Shumway's "A Day in Ancient Rome;" Illustrated Lectures	4
2. GREEK.—Plato, Timaeus; Aristotle, De Anima; Lycophron's Alexandra; Heraclitus, Fragmenta; Extracts from Bacon's Novum Organum and Whewell's History of the Inductive Sciences, for translation	4

JUNIOR CLASS.

ELECTIVE STUDIES.

2. Course in Modern Languages—English and German throughout the year.

FIRST TERM. Hours a week.

1. ENGLISH.—Poetics; Milton 3
2. GERMAN.—Wilhelm Tell, or another play of Schiller; German Prose Composition and Conversational German throughout the Junior and Senior years 3

SECOND TERM.

1. ENGLISH.—The English Drama; Shakespeare 3
2. GERMAN.—Faust, Part I., or another play of Goethe 3

THIRD TERM.

1. ENGLISH.—Sweet's Anglo-Saxon Primer; Chaucer 3
2. GERMAN.—Minna von Barnhelm, or another play of Lessing 3

SENIOR CLASS.

ELECTIVE STUDIES.

2. Course in Modern Languages—French and German throughout the year.

FIRST TERM.

1. FRENCH.—The Classic Drama; Corneille; Moliere; Histoire de la Litteratnre Francaise; Composition and Conversational French throughout the year 4
2. GERMAN.—German Literature. Scherer, with lectures. The class-room work will be conducted entirely in German during the Senior year 4

SECOND TERM.

1. FRENCH.—Old French; Grammar; Phonology; Chanson de Roland. 4
2. GERMAN.—Middle High German; Grammar; The Niebelungen Lied. 4

THIRD TERM.

1. FRENCH.—The Novel of the Romantic School, Hugo; Balzac; Merimee; Sand; Lyric Poetry at sight 4
2. GERMAN.—Sight Reading of the German Lyric Poetry, with German Essays in literary criticism 4

JUNIOR CLASS.

ELECTIVE STUDIES

3. Course in Mathematics and Science—Mathematics and Chemistry, or Biology, throughout the year.

	Hours a week.
FIRST TERM.	
1. MATHEMATICS.—Differential and Integral Calculus, Bowser	3
2. SCIENCE.—*a.* Chemistry.—Experimental Chemistry; Blowpipe Analysis	3
b. Biology.—General Biology and Invertebrate Zoology	3
SECOND TERM.	
1. MATHEMATICS.—Differential and Integral Calculus, Bowser	3
2. SCIENCE.—*a.* Chemistry.—Qualitative Analysis	3
b. Biology.—Invertebrate Zoology	3
THIRD TERM.	
1. MATHEMATICS.—Method of Least Squares: Introduction to Mathematical Astronomy	3
2. SCIENCE.—*a.* Chemistry.—Qualitative Analysis, completed; Quantitative Analysis	3
b. Biology.—Botany and Entomology	3

SENIOR CLASS.

ELECTIVE STUDIES.

3. Course in Mathematics and Science—Mathematics and Physics, or Biology, or Botany and Entomology, or Geology and Mineralogy, throughout the year.

FIRST TERM.	
1. MATHEMATICS.—Higher Mathematics; Practical Astronomy; Observatory Work; Lectures	4
2. SCIENCE.—*a.* Physics.—Mechanics; Light; Laboratory Practice	4
b. Biology.—General Biology and Invertebrate Zoology	4
c. Geology and Mineralogy	4
d. Botany and Entomology.—Embryology; Ostcology	4
SECOND TERM.	
1. MATHEMATICS.—Higher Mathematics; Practical Astronomy; Observatory Work; Lectures	4
2. SCIENCE.—*a.* Physics.—Heat; Electricity; Laboratory Practice	4
b. Biology.—Invertebrate Zoology	4
c. Geology and Mineralogy	4
d. Botany and Entomology.—Histology; Anatomy and Physiology; Lectures; Laboratory Practice	4
THIRD TERM.	
1. MATHEMATICS.—Higher Mathematics; Practical Astronomy; Observatory Work; Lectures	4
2. SCIENCE.—*a.* Physics.—Electricity; Sound; Laboratory Practice	4
b. Biology.—Botany and Entomology	4
c. Geology and Mineralogy	4
d. Botany and Entomology	4

JUNIOR CLASS.

ELECTIVE STUDIES.

4. Course in History and Philosophy.

FIRST TERM. Hours a week.

1. HISTORY.—The Periods of the Renaissance and the Reformation..... 3
2. MORAL PHILOSOPHY.—Butler's Analogy..... 3

SECOND TERM.

1. HISTORY.—The Periods of the Renaissance and the Reformation, continued..... 3
2. MENTAL PHILOSOPHY.—Outlines of the History of Greek Philosophy, Zeller; portions of Schwegler's History of Philosophy; Lectures; Theses..... 3

THIRD TERM.

1. HISTORY.—English Constitutional History..... 3
2. MENTAL PHILOSOPHY.—First and Fundamental Truths, McCosh; Lectures; Theses..... 3

SENIOR CLASS.

ELECTIVE STUDIES.

4. Course in History and Philosophy.

FIRST TERM.

1. HISTORY.—Critical Study of American History; Reports upon current Historical and Economic Literature..... 4
2. MORAL PHILOSOPHY..... 4

SECOND TERM.

1. HISTORY.—Critical Study of American History, continued; Comparative Study of Modern Constitutions; Reports upon current Historical and Economic Literature..... 4
2. MORAL PHILOSOPHY..... 4

THIRD TERM.

1. HISTORY.—Comparative Study of Modern Constitutions; Reports upon current Historical and Economic Literature..... 4
2. ARCHITECTURE..... 4

LATIN.

In the early part of the course in the Latin Language and Literature, the student is aided in mastering the language of the chief writers of the late Republic and early Empire.

At first, the sentence is studied analytically, regarding the value and disposition of clauses and phrases. Then the significance of particular words is sought by inspection of their derivation and by comparison with their actual synonymes. Auxiliary to both of these aims, composition, based on the text which is being read, is practiced in set written and oral exercises; and Latin questions, with extemporaneous answers in Latin, following an inductive colloquial method, are employed according to the progress of the student.

The attention of the student is directed to the differences in syntax and diction of the various periods and authors, and as his familiarity with the language increases, he is led to examine critically the author's literary characteristics. As leading writers of the Republic and early Empire, the Minor Course includes Plautus or Terence, Cicero, Catullus, Livy, Horace, Tacitus and Pliny the Younger.

In the Elective Course is offered a course in Roman Law. At first, antejustinianian text is read, with a rapid review of the historical development of the law from the Twelve Tables to Justinian, touching upon the changes produced by Prætor and Jurisconsult, and the influence of Stoicism and Christianity. Later, Justinian's Redaction is studied, with reading of the Institutes and excerpts—with at least one full title—from the Digest. The chief

object here is not to re-arrange the subject-matter into a code, but to catch the Roman Jurist's way of looking at legal questions, by following, in a general way, the order of the Institutes, supplementing that elementary work by citation of the larger works.

A course of illustrated lectures on Roman Topography and Archæology is given, treating such subjects as the Public and Private Buildings of Rome and Pompeii, the Art and Life of the Romans.

Other subjects of study may be: Roman Oratory, with the reading of Quintilian and Cicero; Roman Philosophy, with the reading of Seneca, Cicero, Lucretius; Christian Latin, with reading from Tertullian, Lactantius, Augustine and Latin Hymns.

GREEK.

The objects aimed at, in the order of time and attention given, are:

1. To master the grammatical structure of the language.
2. To be able to appreciate the strength and beauty of its literature.
3. To trace the influence of its thought on human culture.
4. To know the Civil History and Inner Life of its people.

In order to attain these objects the instruction during the first two years is largely to make the student acquainted with the forms of the language, and the meaning of its words, as an instrument for the expression of thought. This work is required, and is the same for all who take the

classical course. During the two subsequent years the aim will be to enable the pupil to comprehend the thought, and enter into the life of the people; and thus avail himself, as far as possible, of all the influences which the culture of Greece has had on the world's progress. Accordingly, the elements of the language will not be taught as dead forms, but as living realities. In reproducing Greek thought, words will be considered as the counterparts of things, and the two indissolubly united.

A new language must be learned by careful attention to its forms, its syntax, and the meaning of its words before we can make it the vehicle of our thoughts. The aim is constant to reach the second stage as soon as possible. Some pupils will never reach it. But, with fair preparation for entering College, anyone of ordinary intelligence and application may reach it in the required work of the first two years. All then may become able, and those who do, and desire to profit by whatever Greek culture means, will have the opportunity, by electing this course for the two remaining years. The earlier and prescribed course must necessarily be conducted in the spirit of the Gymnasium and the old college methods. The subsequent period combines the University and Seminary systems. Two-thirds of the time on an average must be given to translation from Greek to English; one-third from English to Greek. This alternate translation is believed to be indispensable to the mastery of any language. In pursuance of this idea there will be used such extracts from the best English writers as correspond most nearly with the style and progressive difficulty of the Greek authors read. For the earlier and

easier work, anecdotes and episodes in plain historical narrative will be selected. For the more mature scholar such extracts from the essayists, novelists, philosophic historians and metaphysicians will be chosen as give a fair synopsis of the best English style, and exhibit something from the most distinguished thinkers of other tongues. In reproducing this variety in Greek the pupil will become able to think in this language on those subjects which most nearly concern a man of culture, and to express himself as an educated Athenian did at the time the language was at its highest excellence.

The course of instruction is intended to embrace at least one complete treatise from a leading author belonging to each period, from Homer to Lucian. While the amount read is indicated by the Catalogue, it is the purpose to vary the authors, or the portions from the same author, from year to year.

Promising students are encouraged to take special courses of study, in addition to the regular class work; and private instruction is constantly given. The following books of reference are recommended: Smith's Classical Dictionaries, 6 Vols.; Jelf's and Krüger's Greek Grammars and Kühner's ausführliche griechische Grammatik; Liddell and Scott's Lexicon, 7th Oxford Edition; Grote's History of Greece, and Mahaffy's History of Greek Literature.

MODERN LANGUAGES.

ENGLISH LANGUAGE AND LITERATURE.—The course in English embraces, with the elective study of Anglo-Saxon,

the required study of the history of the English language and its literature, and the critical reading of English classics. A course of private reading is prescribed, upon which examinations are held. Essays in literary criticism are required during the Sophomore year. The elective study of the language and literature is pursued during the Junior year.

GERMAN.—German is taught three hours a week throughout the Sophomore year as a required subject. During the first term, the grammar is the main object of study, with constant practice in the translation of illustrative sentences, both from German into English and from English into German. At the same time the student is required to learn, day by day, short vocabularies of commonly-used words, for conversational drill in the classroom. In the second term easy German prose is read, both in set lessons and at sight, and in the third, selections from standard authors for careful translation and for literary analysis. It is the aim of the required course in German to give all the students a competent knowledge of the grammar, and a sufficiently large vocabulary to be able to read ordinary prose with ease, and to pursue further study by themselves without difficulty.

In the Junior and Senior years German is made one of the eight elective subjects, three hours a week throughout the Junior and four hours throughout the Senior year. The students who choose this subject are taught not only the reading knowledge of modern German, but are drilled in connected conversation and in the

study of the older periods of the language from German text-books, the instruction throughout the Senior year being given entirely in the German language.

FRENCH.—French is taught three hours a week throughout the Junior year as a required study. A careful phonetic analysis of the pronunciation is insisted on, and the syntax is taught historically, presupposing a thorough acquaintance with the Latin grammar. In the second term a large amount of easy prose is read, with constant practice in translation both from French into English and from English into French. In the third term the harder authors are selected and the literary form is studied as well as the language itself. The required course is intended to give to all a practical acquaintance with the language, wide enough to enable them to read ordinary French prose at sight.

In the Senior year French forms a part of one of the elective courses, being taught four hours a week to such as choose to pursue it.

MATHEMATICS AND ASTRONOMY.

The required studies in Mathematics include Algebra, Geometry, with problems and original exercises, Plane and Spherical Trigonometry, with their application to problems in Surveying and Navigation, and Analytic Geometry. These are the mathematical studies of the first two years.

ELEMENTARY ASTRONOMY is taught during the second term to all the members of the Junior Class.

The subject of mathematics may be pursued as an elective study throughout the Junior and Senior years.

Among the subjects offered in this course are the following:

Analytic Geometry of Three Dimensions.
The Differential and Integral Calculus.
The Method of Least Squares.
Introduction to Mathematical Astronomy.
Higher Mathematics.
Practical Astronomy, supplemented by observatory work and lectures.

The DANIEL S. SCHANCK OBSERVATORY is well equipped for the work of practical instruction, being supplied with a six and one-half inch equatorial refracting telescope with position micrometer, a meridian circle with four-inch object glass, sidereal time clock, barometer, a reflecting repeating circle and other instruments. It is in telegraphic connection with other observatories.

The Observatory was designed and is used not only for independent work but for the instruction of students in the theory and the use of astronomical instruments, and in practical observatory work. It affords to students unusual facilities for learning how to use astronomical instruments.

CHEMISTRY.

INORGANIC CHEMISTRY is taught from a text-book, and fully illustrated by lectures which demonstrate experimentally the points made in the book. The course covers the first term of Sophomore year, with exercises four hours each week. The intention is to give each student such a general knowledge of the science as every educated man

should possess. Provision is made in an elective course for those who wish to pursue the subject further.

ELECTIVE CHEMISTRY.—In the Junior and Senior years, students may elect a course in Analytical Chemistry with Laboratory Practice and Lectures. The experimental studies in this department have proved both attractive and profitable to those intending to devote themselves to Law or Medicine, or to business pursuits, as well as to men who intend to teach or to pursue lines of work immediately connected with chemistry and its applications.

The pupil begins by making the experiments in Remsen's Chemistry, thus acquiring by actual experience a familiarity with chemical substances and chemical phenomena.

The study of *Qualitative Analysis* is next taken up. The student makes the tests, studies the reactions, and proceeds rapidly from the analysis of simple substances to more complex. The method here followed of keeping notes of every step affords the student valuable practice in the three divisions of experimental science—Experiment, Observation and Inference. The theory of analysis is explained in the lectures and recitations on the subject. In connection with this subject, *Blowpipe Analysis* is also taught.

Students able to finish the foregoing before the end of the College year, proceed to *Quantitative Analysis*. The instruction in this subject is not so much on detail as on general principles and construction and use of apparatus. Typical salts of known composition are analyzed gravimetrically and volumetrically, and then substances requiring for their determination carefully constructed apparatus.

MINERALOGY AND GEOLOGY.

A course of lectures in Mineralogy is given to the Senior Class, in which free use is made of the valuable mineral collections of the College, and of the private collection of the Professor in charge, which has been deposited in Geological Hall, by means of which the characteristics of the most important mineral species are illustrated and explained.

In the study of Geology a text-book is used, but each lesson is explained in advance by a short lecture, at which time suitable specimens are exhibited.

PHYSICS.

This subject is taught by lectures, and copious additions are made to the matter of the text-book. Each point is demonstrated as far as possible; and the relations of the subject to ordinary natural phenomena, the processes of the industrial arts, etc., are pointed out. Students are encouraged to use the apparatus under the direction of the Professor in charge, and are trained to distinguish the essential from the casual conditions of experiments, as well as to infer from scientific data no more than is certain and warranted. The course begins with Mechanics and proceeds to Heat, Electricity, Sound and Light.

The apparatus is well fitted to illustrate all principles, and such additions are made to it as the industrial applications of science demand.

ELECTIVE PHYSICS.—During the Senior year of the Classical Course, Physics is an elective study.

The object of this elective is to furnish a sound, practical foundation to those who expect to engage in industrial pursuits, or in professions which demand acquaintance with the principles of Physics. The work consists of a course of laboratory exercises such as is set forth in Stewart and Gee's Practical Physics, besides many of the experiments described in the text-book used in the lecture course. The facilities of the Physical Laboratory have been greatly increased, so that all essentials are available to students.

BIOLOGY.

PHYSIOLOGY AND ZOOLOGY.—Required one hour a week, during the first two terms of the Freshman year. The method of instruction is by lectures and quizzes, supplemented by demonstrations from charts, specimens, dissections, and Auzoux models. The aim is to give the student a bird's-eye view of the principles of Physiology, the structure of animals, and such an acquaintance with the facts of Zoology as shall enable him later to pursue psychological and geological studies with increased profit.

GENERAL BIOLOGY.—Elective in the Junior and Senior years. The distinctive studies of the Course in Biology of the Scientific School must be chosen. The time required is three morning hours and two afternoons in the Junior year, and four morning hours and two afternoons in the Senior year. One-half of this time during the first two terms of each year will be pursued with the Professor of Biology. A detailed account of the studies of this portion of the course is given under the sub-head of General

Biology for the Scientific School. The remaining time for the Biological Elective is divided between the Professors of Botany and of Entomology.

BOTANY.

Students in all courses take Botany two hours a week in the Spring term of the Freshman year. Gray's "Revised Lessons" is used as the text-book in descriptive Botany, and in connection with this, the students familiarize themselves with the methods of plant analysis. Each point considered is, as far as possible, illustrated by living specimens, either grown in the laboratory for purposes of dissection or collected in the fields and forests. Students are taught the methods of preparing and mounting specimens as abundantly seen in the College Herbarium.

The work of the Junior and Senior years, required in the Courses in Agriculture and Biology, is open for election by the students of the corresponding years in all the classical courses.

HISTORY AND POLITICAL SCIENCE.

The study of History in the Classical Department is begun in the second term of Sophomore year with the use of a text-book as a guide. The course is planned to cover European history, in outline, from the beginning of the Empire to the outbreak of the French Revolution. The progress of the greater movements in political and social development is traced, and emphasis is laid upon the formation and growth of modern States. In this required part of the course the method of instruction is to some

extent topical, and aims to furnish information essential to good citizenship, to cultivate a habit of investigation, and to teach the student how to come to independent conclusions. Students are encouraged to use the library, are given direction in methods of historical work, and are taught the value of historical sources. A constant use of the historical atlas is required of the student throughout the prescribed courses.

For students in the Scientific Department, a corresponding course in general European history is given in the first and second terms of the Junior year. In the third term, Guizot's History of Civilization in Europe is used as a text-book by both sections of the class.

The lectures before the class and the subjects assigned for essays are intended to stimulate a desire to understand the ideas which underlie the causes of events, and which give to history its continuity and unity.

Elective History.—Elective courses are open to Juniors and Seniors, offering facilities for advanced and systematic work in special periods of history, and for a study of the origin and development of political institutions. The courses include both European and American history.

The method of study is by lectures and topics. It aims to cultivate a spirit of original research and places emphasis upon library investigations. For students of the Senior Class a Seminary of History and Politics is organized, in which papers embracing the results of independent original study are reported.

The following is an outline of the proposed elective courses:

JUNIOR YEAR.

I. The Periods of the Renaissance and the Reformation.

The work will consist chiefly of library investigations and critical examinations of reports growing out of these investigations. The class will meet three times each week during the first and second terms.

II. English Constitutional History.

Instruction will be given by text-books, lectures and required readings on assigned topics. This is taken as an introduction to American History. Three times each week during the third term.

SENIOR YEAR.

III. Colonial History of America, followed by the Constitutional and Political History of the United States.

The methods of instruction are in general the same as in the Junior year. It is designed to be a critical study of American history. Attention is especially given to the growth of nationality and to the development of the Constitution. Three hours during the first and second terms.

IV. Comparative Study of the Modern Constitutions.

In this course the Constitutions of modern European States are studied and compared with that of the United States. A part of the second and the third term, three hours each week.

V. Seminary of History and Politics.

This is designed for original investigations, and for reports upon the current historical and economic literature. One hour each week throughout the year.

Political Economy.—The Senior Class, in both the Classical and Scientific Departments, receives instruction in the principles of Political Economy four hours weekly during the first term. In addition to the use of a text-book, lectures, formal and informal, are given, discussions are held, special topics are assigned to individuals for careful study, the results of which are read before the class, and essays are prepared by the class on some subject chosen from a number relating to this science.

Constitutional Law.—The Senior Class in both departments, pursues the study of Constitutional Law four hours weekly during the Winter term. Cooley's Principles of Constitutional Law is used as a text-book. Lectures are read by the President before the class on the historical development of the Constitution and some of the more important decisions of the Supreme Court are analyzed, for example those relating to the prohibition of State laws impairing the Obligation of Contracts, the Legal Tender Cases and others of importance and paramount significance. The aim is to ground all the students in a knowledge of the elements of Constitutional Law and to give a special preparation to those about to choose the profession of the law. This is particularly kept in view in assigning the subjects for the essays which accompany the other work of the term.

International Law.—This subject is taken up the last term of the Senior year. Lectures are given by the President four hours weekly. The peculiar character of this

branch of law is dwelt upon, its development, the authorities and sources, and its present status.

Civics.—The President meets the Freshman Class of both departments one hour each week for their instruction by use of text-book and lecture in the elements of Civics and the duties of the citizen.

MORAL PHILOSOPHY, CHRISTIAN EVIDENCES AND THE ENGLISH BIBLE.

During the first term the Juniors and Seniors of the Classical section have an elective course in Ethics. Butler's Analogy is studied by the Juniors, and Calderwood's Moral Philosophy by the Seniors.

In the second term the Senior elective in Moral Philosophy is continued for part of the term, the latter part being given to the study of Christian Evidences. During this term the whole Classical section of the Seniors receive instruction in the English Bible by lectures.

In the third term both sections of the Senior Class pursue the study of Practical Ethics.

METAPHYSICS AND LOGIC.

Mental Philosophy.—The Juniors are required to prepare five recitations a week in Porter's Elements of Intellectual Philosophy during the first term. Lectures are delivered on the brain and its connection with the mind, and on kindred topics relating to the nervous system. The results of recent critical discussions on philosophical and

metaphysical questions, together with comments, are fully interspersed through the daily recitations.

ELECTIVE COURSE IN PHILOSOPHY.—This course, consisting of three recitations a week, extends through the second and third terms of the Junior year. It embraces the History of Philosophical Speculation, together with lectures on the most distinguished representatives of various distinctive systems. The students are obliged to present carefully written results of their own researches on assigned subjects, in addition to the pursuit of regular text-books. It is hoped to inspire by this course such a love of high and critical thought as to lead members of the class to continue through life to make attainments in the same direction. The class-room work will consist of recitations in Zeller's Outlines of the History of Greek Philosophy, portions of Schwegler's History of Philosophy, relating to modern schools, McCosh's First and Fundamental Truths, lectures on Descartes, Leibnitz, Locke, Reid, Kant, Hegel, etc., by the Professor, and theses by the students, giving the results of their own researches along specified lines and subjects.

LOGIC.—Jevons-Hill's text-book is used for two recitations a week during the second term. Special care is taken to enforce a practical application of logical formulas in the resolution of arguments and the detection of sophistries. To this end, illustrative examples are drawn from different authors and much oral instruction is given.

RHETORIC.

ELOCUTION.—The aim is to develop effective delivery in forms of expression. The scope of instruction embraces Physical Culture, Respiration, a Training of the Voice and a cultivation of the powers by which thought is analyzed and presented in synthetic expression.

RHETORIC.—In the department of Rhetoric, begun during the Freshman year, an effort is made to teach the principles of Composition, not as laid down in mechanical rules, but as springing from psychological laws and relations. Ideas presented in accordance with various mental requirements and influences are shown to contain the true philosophy of rational and effective discourse.

Illustrative references to the Masterpieces of Oratory, and to other forms of the best English Classical Literature, are freely given. Essays are required throughout the entire course.

EXTEMPORE SPEAKING.—The Bussing Prizes for excellence in extempore speaking, recently founded, are designed to cultivate the habit of presenting clearly, forcibly and accurately, and in a manner to convince an audience, the facts and ideas a student has upon themes with which he may fairly be supposed to be somewhat conversant. The repeated competition for these prizes during the four years of the College course has already produced excellent effects.

THE FINE ARTS.

The residence of former Presidents of the College has been refitted for the uses of the Fine Arts Department of

the College, and is known as the Fine Arts Building. It contains the art collections of the College, including "The Thomas L. Janeway, M.D., Memorial Collection" of casts, and the various gifts of friends of the institution.

The pictures, models, casts and photographs are arranged to represent, as far as possible, the art of the world. A new lecture-room, having adequate facilities for illustrating lectures by the stereopticon and otherwise, is in use, and the arranging and classifying of the Museum is going forward. Acquisitions are being continually made to the Museum and every facility for illustrating the history of art is being added to the department. Besides the lectures of the Professors in charge of this department, subjects related to the fine arts will be treated from time to time by other lecturers. This year an extra course of lectures on the Fine Arts by well-known lecturers will be given during the second term, and will be open to the Juniors and Seniors.

ARCHITECTURE—*Professor Doolittle.*—Architecture is an elective occupying four hours a week during the third term of the Senior year. Several hundreds of views are thrown upon the screen by stereopticon in illustration of the different orders and styles of buildings that have prevailed among different nations in successive periods. Lectures accompany the views and afford also much information on statuary, painting and other fine arts connected with architecture.

SCULPTURE—*Professor Shumway.*—The lectures on Sculpture embrace the classical art of Greece and Rome, and

are illustrated by lantern slides, photographs, and the vari ous casts of the Museum. By special arrangement thes lectures will not be given in course this year, Professo Shumway covering substantially the same ground in th course of public lectures to be given during the second an third term.

PAINTING—*Professor Van Dyke.*—During the secon term of this year there will be for the Seniors a course o lectures on old Italian and modern French painting, cover ing the ground in Italy from early Christian times to th Decadence following the Renaissance, and in France fron the time of Francis I. to the present day. All of these lec tures will be illustrated by lantern slides of the master pieces of painting.

PHYSICAL DEVELOPMENT.

GYMNASIUM.—The excellent Gymnasium in Suydan Hall, three minutes' walk from the College buildings, b the courtesy of the Theological Seminary of the Reformed Church, is opened to the daily use of the students of th College.

Through the liberality of Mr. Robert F. Ballantine, member of the Board of Trustees, a gymnasium will b built during the present year. It will be amply provided with the best modern appliances for systematic physica instruction.

ATHLETICS.—In order to secure for the students th benefits of out-of-door exercise, athletic sports are encour aged by the provision of adequate facilities. Rightly

controlled, such sports have shown themselves beneficial both to the health of the students and to the quality of the work done, and are manifestly in the interest of good order. The more prominent athletes have been generally among the more earnest and successful students. The proper control of athletics has been secured by the organization of an incorporated athletic association, supported by the students and managed by a board of nine trustees, chiefly composed of resident alumni. In this board the Faculty has always had one or more representatives, and in this way a cordial co-operation has been steadily maintained between Faculty and students, avoiding the need for the exercise of direct authority.

The New Athletic Field.—By the generosity of Mr. James Neilson, of New Brunswick, an alumnus and Trustee of the College, there is now provided an athletic field containing more than five acres and at a walking distance of about eight minutes from the College campus.

About five thousand dollars have been spent in improving this field and providing proper accommodations. A commodious grand stand has been erected, with dressing-rooms and bath-rooms attached, and everything has been done to make the field as nearly perfect as possible and to render it practically useful to the students.

SCIENTIFIC DEPARTMENT.

RUTGERS SCIENTIFIC SCHOOL,

BY ACT OF THE LEGISLATURE CONSTITUTED THE STATE COLLEGE FOR THE BENEFIT OF AGRICULTURE AND THE MECHANIC ARTS.

BOARD OF VISITORS.

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1. ADMISSION.

Every applicant for admission must be at least sixteen years of age, and must submit to the President proper testimonials of a good moral character. If an applicant for a Free State Scholarship, he must also present to the President a certificate of appointment.

Examinations for admission will be held on the same days as for the Classical Department, viz.: On the Friday and Saturday preceding Commencement week, June 16th and 17th, 1893, beginning at 10 o'clock A. M. on Friday, in the Registrar's office. Applicants for admission may also be examined on Tuesday, September 19th, at the same hour and place; but all students who can conveniently do so, are advised to be present in June.

From certain preparatory schools of established reputation students are admitted without examination, upon the Principal's certificate that they have completed the required amount of work and are prepared to enter College. Blanks for such certificates will be furnished upon application to the Registrar, Mr. IRVING S. UPSON, or to the President of the College. Students may enter an advanced class either at the beginning of the College year or at other times, if they sustain a satisfactory examination both on the preliminary studies and on those already passed over by the class which they propose to enter.

Provision is made for such students as wish to devote themselves to special subjects, if they are prepared to study

profitably with the regular classes in those subjects; but special students are required to take sufficient work fully to occupy their entire time.

REQUIREMENTS FOR ADMISSION.

The following are the subjects in which those who wish to enter the Freshman Class of the Scientific Department are examined. Since all are such as can be acquired in our best common schools, it is insisted that the preparation in them shall be thorough and complete. The general regulations as to conditions and their removal will be the same as those which apply to the Classical Course, and may be found on page 21.

1. ARITHMETIC.—Fundamental Operations; Common and Decimal Fractions; Denominate Numbers, including the Metric System; Percentage, including Interest and Discount; Proportion; Square and Cube Root.

In preparing the student for this course, it is recommended that he be drilled thoroughly in Arithmetic, as a clear understanding of its simple elementary and practical principles is essential to a good Mathematician.

2. ALGEBRA through Arithmetic, Geometric and Harmonic Progressions, or the first seventeen chapters of Bowser's College Algebra.

His preparation in Algebra should be *very thorough*. In addition to understanding the PRINCIPLES of the science, he must fix them in his memory, and learn their bearing and utility, and for this reason he should pay great attention to the solution of practical examples. What is needed is ability to solve ordinary examples with facility and to explain them thoroughly.

Attention is specially called to the solution of Simultaneous Quadratic Equations, and of Equations of Higher Degrees than the Second, which may be reduced to the quadratic form, and then solved by the methods of solving quadratics.

3. PLANE GEOMETRY.—The *whole* of Plane Geometry will be required.

In June, 1894, and thereafter, the *whole* of Solid Geometry will also be required.

4. ENGLISH GRAMMAR—including Spelling.

A short ENGLISH ESSAY is also required, to be written at the examination, on some theme drawn from books announced in advance; the essay to be correct in spelling, punctuation, division into paragraphs, grammar and expression. In June and September, 1893, the themes will be drawn from these books, which all students who apply for admission then should have read carefully: Scott's *Lady of the Lake;* Shakespeare's *Winter's Tale;* Irving's *Sketch Book;* Tennyson's *Idylls.*

In 1894, students should be familiar with Shakespeare's *Julius Cæsar* and *Merchant of Venice;* Scott's *Lady of the Lake;* Longfellow's *Courtship of Miles Standish;* Scott's *Ivanhoe;* Kingsley's *Westward Ho!*

5. DESCRIPTIVE GEOGRAPHY.

6. PHYSICAL GEOGRAPHY.

7. HISTORY OF THE UNITED STATES.—Johnston's History of the United States, or its equivaleut.

Students often lack thorough or recent preparation in this subject. A more accurate knowledge of American History has become necessary as preliminary to the systematic instruction now given on the duties and relations of American citizenship.

8. PHYSICS.—Studeuts are required to show satisfactory acquaintance with Wells' or Cooley's Natural Philosophy, or Peck's Ganot's Physics.

9. CHEMISTRY.—Such knowledge of Chemistry as may be obtained from a thorough study of Remsen's, Cooley's or Steele's Chemistry complete. Remsen's Elements of Chemistry is recommended, because Remsen's text-books are used during the course.

2. COURSES OF STUDY.

Five distinct courses of study are included in the schedule which follows:

I. A COURSE IN AGRICULTURE.
II. A COURSE IN CIVIL ENGINEERING AND MECHANICS.
III. A COURSE IN CHEMISTRY.
IV. A COURSE IN ELECTRICITY.
V. A COURSE IN BIOLOGY.

During the first year the studies of the five full courses are the same, and are designed to furnish a suitable

introduction to the pursuit of the higher branches in either.

At the end of the first year students elect to pursue one of the five full courses, and for the remaining three years their studies are directed with particular reference to the choice made. Some studies which go to the equipment of the intelligent citizen, whatever his occupation, such as History (see page 45), English Literature (see page 37), Political Economy (see page 47), Political Ethics (see page 48), and others, are interspersed throughout the entire four years, in order that students may not only acquire a thorough preparation for their special pursuits in life, but may at the same time receive a liberal training which will fit them to discharge wisely and usefully the duties of good citizenship.

FRESHMAN CLASS.

Uniform Schedule for all Scientific Courses.

The Arabic numerals in light-faced type indicate the number of morning hours each week; those in bold-faced type the number of afternoon hours. Exercises throughout the year in Composition, Declamation and Extempore Speaking. Bible Class and Sermon each Sunday morning. Drill twice a week.

FIRST TERM, Thirteen Weeks.

Hours a week.

1. French.—Whitney's Practical French Grammar, Part I 5
2. Mathematics.—Algebra, completed, Bowser. Geometry, Bowser..... 5
3. Physiology 2
4. Rhetoric.—Clark; Lectures; Essays 2
5. English Literature.—History of the Language, Meiklejohn 1
6. Civics 1
7. Draughting.—Practice in use of Instruments; Geometrical Problems and Applications 4

SECOND TERM, Thirteen Weeks.

1. French.—Keetel's Analytical French Reader; Grammar, Part II 5
2. Mathematics.—Geometry completed; Trigonometry, Plane and Spherical, Bowser 5
3. Zoology 2
4. English Literature.—English Literature; Meiklejohn.. 4
5. Draughting.—Plain and Colored Topography 4

THIRD TERM, Ten Weeks.

1. French.—Classic Authors 5
2. Mathematics.—Surveying, Murray 5
3. Botany.—Gray's; Lectures 2
4. English Literature.—English Authors 4
5. Draughting.—Mapping, with Sections, etc.; Field Work. 4

SOPHOMORE CLASS.

Uniform Schedule for Course in Agriculture, Course in Chemistry, and Course in Biology.

FIRST TERM.

	Hours a week.
1. Experimental Chemistry.—Remsen (first two months).....	5
2. Blowpipe Analysis.—Nason; Lectures (last month of term).....	
3. Chemistry.—Remsen; Lectures, with Experiments.....	4
4. Physics.—Ganot; Lectures.....	3
5. German.—Whitney's Brief German Grammar.....	3
6. English Literature.—English Authors.....	1
7. Chemical Laboratory Practice.—Experimental Chemistry and Blowpipe Analysis.....	9
8. Draughting.—Practical Geometry, solid.....	2

SECOND TERM.

1. Qualitative Analysis.—Fresenius; Lectures.....	5
2. Chemistry.—Remsen; Lectures, with Experiments.....	3
3. Physics.—Ganot; Lectures.....	3
4. German.—German Reader.....	4
5. English Literature.—English Authors.....	1
6. Chemical Laboratory Practice.—Qualitative Analysis.....	9
7. Draughting.—Free-Hand Drawing; Intersection and Development of Surfaces.....	2

THIRD TERM.

1. Qualitative Analysis.—Fresenius; Lectures.....	5
2. Chemistry.—Organic Chemistry.—Lectures, with Experiments.....	3
3. Physics.—Ganot; Lectures.....	3
4. German.—Scientific German.....	4
5. English Literature.—English Authors.....	1
6. Chemical Laboratory Practice.—Qualitative Analysis.....	9
7. Draughting.—Shades and Shadows; Linear Perspective, etc.....	2

SOPHOMORE CLASS.

Uniform Schedule for Course in Civil Engineering and Mechanics and Course in Electricity

FIRST TERM.

	Hours a week.
1. DESCRIPTIVE GEOMETRY.—Church	5
2. CHEMISTRY.—Remsen; Lectures, with Experiments	4
3. PHYSICS.—Ganot; Lectures	3
4. GERMAN.—Whitney's Brief German Grammar	3
5. ENGLISH LITERATURE.—English Authors	1
6. DRAUGHTING.—Practical Geometry, Solid	4

SECOND TERM.

1. DESCRIPTIVE GEOMETRY.—Church, completed 2. ANALYTIC GEOMETRY.—Bowser	5
3. CHEMISTRY.—Remsen; Lectures, with Experiments	3
4. PHYSICS.—Ganot; Lectures	3
5. GERMAN.—German Reader	4
6. ENGLISH LITERATURE.—English Authors	1
7. DRAUGHTING.—Free-Hand Drawing; Intersection and Development of Surfaces, etc	4

THIRD TERM.

1. ANALYTIC GEOMETRY.—Bowser, completed	5
2. CHEMISTRY.—Organic Chemistry; Lectures, with Experiments	3
3. PHYSICS.—Ganot; Lectures	3
4. GERMAN.—Scientific German	4
5. ENGLISH LITERATURE.—English Authors	1
6. DRAUGHTING.—Shades and Shadows; Linear Perspective, etc	4

JUNIOR CLASS.

Schedule for Course in Agriculture.

	Hours a week.
FIRST TERM.	
1. Agriculture.—Farm Economy	3+3
2. Invertebrate Zoology.	2
3. Elements of Mechanism	2
4. Mental Phisosophy—Porter's Elemeuts of Intellcctual Philosophy..	2
5. History—Fisher.	5
6. Military Science	1
7. Biological Laboratory Practice.	9
SECOND TERM.	
1. Agriculture.—Manures and Fertilizers	3
2. Anatomy of Domestic Animals; Vegetable Histology	2
3. Mineralogy.—Lectures	2
4. Mental Philosophy and Logic	2
5. History.—Fisher	3
6. Astronomy.—Young's Elements	3
7. Biological Laboratory Practice.	6
THIRD TERM.	
1. Vegetable Physiology	3
2. Entomology.—Structure of Insects	5+6
3. History of Civilization.—Guizot	5
4. Military Science.	2
5. Botanical Laboratory Practice	6

SENIOR CLASS.

FIRST TERM.	
1. Agriculture.—Feeding Animals	4
2. Entomology.—Systematic	3+6
3. Osteology and Embryology	2
4. Political Economy.—Walker and Perry; Lectures	4
5. Geology.—Geikie	2
6. Biological Laboratory Practice	6
SECOND TERM.	
1. Agriculture	5
2. Agricultural Zoology	2
3. Botany.—Cryptogamic	2
4. Constitutional Law.—Cooley; Essays	4
5. Geology.—Geikie	2
6. Military Science	1
7. Biological Laboratory Practice	6
8. Botanical Laboratory Practice	6
THIRD TERM.	
1. Agriculture	3
2. Economic Entomology	4+6
3. Vegetable Pathology	2+6
4. International Law	4
5. Practical Ethics.—Hopkins	2
6. Thesis	...

JUNIOR CLASS.

Schedule for Course in Civil Engineering and Mechanics.

FIRST TERM.

	Hours a week.
1. Differential Calculus—Bowser	5
2. Elements of Mechanism	2
3. Mental Philosophy.—Porter's Elements of Intellectual Philosophy,	2
4. History.—Fisher	5
5. Military Science	1
6. Draughting.—Lettering, etc	4

SECOND TERM.

1. Differential Calculus—Completed; Integral Calculus, Bowser	5
2. Mineralogy—Lectures	2
3. Mental Philosophy and Logic	2
4. History.—Fisher	3
5. Astronomy.—Young's Elements	3
6. Draughting.—India Ink and Color Shading, etc	4

THIRD TERM.

1. Integral Calculus—Completed	5
2. Railroad Curves—Henck's Field Book	3
3. History of Civilization.—Guizot	5
4. Military Science	2
5. Draughting—Copying, Tracing, Blue-Print Copying, Railroad Profiles and Cross Sections; Field Work	4

SENIOR CLASS.

FIRST TERM.

1. Mechanics.—Bowser	5
2. Bridge-Building—Wood	4
3. Political Economy.—Walker and Perry; Lectures	4
4. Geology.—Geikie	2
5. Draughting.—Machinery and Architecture	4

SECOND TERM.

1. Mechanics.—Bowser, Completed	5
2. Bridge-Building—Completed; Hydromechanics, Bowser	4
3. Constitutional Law.—Cooley; Essays	4
4. Geology.—Geikie	2
5. Military Science	1
6. Draughting.—Graphical Statics as Applied to Bridges, etc	4

THIRD TERM.

1. Hydromechanics.—Completed	5
2. Geodesy.—Lectures	4
3. International Law	4
4. Practical Ethics.—Hopkins	2
5. Draughting.—Thesis	...

JUNIOR CLASS.

Schedule for Course in Chemistry.

FIRST TERM.

Hours a week.

1. Quantitative Analysis.—Fresenius, Cairus; Lectures 2
2. Organic Chemistry.—Remsen; Lectures 3
3. Elements of Mechanism 2
4. Mental Philosophy.—Porter's Elements of Intellectual Philosophy.. 2
5. History.—Fisher 5
6. Military Science 1
7. Chemical Laboratory Practice.—Quantitative Analysis 11

SECOND TERM.

1. Organic Chemistry.—Remsen; Lectures 4
2. Mineralogy.—Lectures and Crystallography 3
3. Mental Philosophy and Logic 2
4. History.—Fisher 3
5. Astronomy.—Young's Elements 3
6. Chemical Laboratory Practice.—Quantitative Analysis 11

THIRD TERM.

1. Stoichiometry.—Foye; Lectures 3
2. Determinative Mineralogy 5
3. History of Civilization.—Guizot 5
4. Military Science 2
5. Chemical Laboratory Practice.—Quantitative Analysis 11

SENIOR CLASS.

FIRST TERM.

Hours a week.

1. Applied Chemistry.—Wagner's Technology; Lectures 3
2. Physical Chemistry.—Lectures 5
3. Reports.—Recent Chemical Literature 1
4. Political Economy.—Walker and Perry; Lectures 4
5. Geology.—Geikie 2
6. Chemical Laboratory.—Quantitative Analysis; Organic Chemistry.. 11

SECOND TERM

1. Applied Chemistry.—Wagner's Technology; Lectures 4
2. Principles and Theories of Chemistry.—Lectures 4
3. Reports.—Recent Chemical Literature 1
4. Constitutional Law.—Cooley; Essays 4
5. Geology.—Geikie 2
6. Military Science 1
7. Chemical Laboratory.—Quantitative Analysis; Organic Chemistry.. 11

THIRD TERM.

1. Applied Chemistry.—Wagner's Technology; Lectures 3
2. Principles and Theories of Chemistry.—Lectures 5
3. Reports.—Recent Chemical Literature 1
4. International Law 4
5. Practical Ethics.—Hopkins 2
6. Thesis ....
7. Chemical Laboratory.—Quantitative Analysis; Organic Chemistry.. 11

JUNIOR CLASS.

Schedule for Course in Electricity.

	Hours a week.
FIRST TERM.	
1. Differential Calculus.—Bowser	5
2. Elements of Mechanism	2
3. Mental Philosophy.—Porter's Elements of Intellectual Philosophy	2
4. History.—Fisher	5
5. Military Science	1
6. Draughting.—Lettering, etc	4
7. Physical Laboratory Practice	3
SECOND TERM.	
1. Differential Calculus.—Completed; Integral Calculus, Bowser	5
2. Mineralogy.—Lectures	2
3. Mental Philosophy and Logic	2
4. History.—Fisher	3
5. Astronomy.—Young's Elements	3
6. Draughting.—India Ink and Color Shading, etc	4
7. Physical Laboratory Practice	3
THIRD TERM.	
1. Integral Calculus.—Completed	5
2. Physics	3
3. History of Civilization.—Guizot	5
4. Military Science	2
5. Draughting.—Construction, Copying, Tracing, Blue-Print Copying	4
6. Physical Laboratory Practice	3

SENIOR CLASS.

FIRST TERM.	
1. Mechanics.—Bowser	5
2. Practical Electricity	4
3. Political Economy.—Walker and Perry; Lectures	4
4. Geology.—Geikie	2
5. Draughting.—Machinery and Architecture	4
6. Physical Laboratory Practice	3
SECOND TERM.	
1. Mechanics.—Bowser, Completed	5
2. Theory of Electricity; Hydromechanics, Bowser	4
3. Constitutional Law.—Cooley; Essays	4
4. Geology.—Geikie	2
5. Military Science	1
6. Draughting.—Graphical Statics, with Applications	4
7. Physical Laboratory Practice	3
THIRD TERM.	
1. Hydromechanics.—Bowser	5
2. Theory of Electricity	4
3. International Law	4
4. Practical Ethics.—Hopkins	2
5. Physical Laboratory Practice	3
6. Draughting.—Thesis	...

JUNIOR CLASS.

Schedule for Course in Biology.

FIRST TERM.

Hours a week.

1. Invertebrate Biology 5
2. Elements of Mechanism 2
3. Mental Philosophy.—Porter's Elements of Intellectual Philosophy .. 2
4. History.—Fisher 5
5. Military Science 1
6. Biological Laboratory Practice 9

SECOND TERM.

1. Vegetable Biology; Vertebrate Biology 5
2. Mineralogy.—Lectures 2
3. Mental Philosophy and Logic 2
4. History.—Fisher 3
5. Astronomy.—Young's Elements 3
6. Biological Laboratory Practice 12

THIRD TERM.

1. External Anatomy of Insects; Systematic Entomology; Cryptogamic Botany 8
2. History of Civilization.—Guizot 5
3. Military Science 2
4. Biological Laboratory Practice 12

SENIOR CLASS

FIRST TERM.

1. Systematic Entomology; Osteology and Embryology 9
2. Political Economy.—Walker and Perry; Lectures 4
3. Geology.—Geikie 2
4. Biological Laboratory Practice 12

SECOND TERM.

1. Vegetable Pathology; Comparative Anatomy and Histology 9
2. Constitutional Law.—Cooley; Essays 4
3. Geology.—Geikie 2
4. Military Science 1
5. Biological Laboratory Practice 12

THIRD TERM.

1. Internal Anatomy of Insects; Economic Entomology; Economic Botany 9
2. International Law 4
3. Practical Ethics.—Hopkins 2
4. Biological Laboratory Practice 12
5. Thesis ....

COURSE IN AGRICULTURE.

The object of this course is to provide a broad scientific training, which is now recognized as essential to the best life on the farm.

The major studies of this course include Applied Agriculture, Biology, Botany and Entomology.

AGRICULTURE.—In the first term, Junior year, the student is instructed in business methods, relations of weather to farming, the characteristics of the different breeds of farm animals, their care and management, and their adaptability to the various purposes and conditions, and their general economic relations.

The study of the principles of scientific agriculture and their application to the different lines of farm practice, is continued throughout both the Junior and Senior years. The elements contained in the atmosphere and soil being the basis of all vegetable and animal life, the student is instructed in the transformations which take place in these elements in the production of crops, in the growth of animals, and in the principles which govern their conversion into products of the highest economic value.

While suitable text-books are used, the instruction, in both the principles and their application, is imparted mainly by lectures.

For those unable to take the full Agricultural Course, provision has been made for College instruction by means of the College Extension system.

Animal Biology.—In the Freshman year the students in Agriculture pursue Physiology and Zoology two hours a week, the first two terms, reciting with the other students of the Scientific School.

In the Junior and Senior years, Fall and Winter terms, students in Agriculture devote two morning hours and two afternoons a week to General Biology, as follows: General Biology of Plants, first half Fall term, Junior year; Invertebrate Zoology, second half of same term; Vertebrate Zoology, Winter term.

Comparative Osteology and Comparative Embryology, in the Fall term, Senior year; Comparative Anatomy of the Domesticated Animals and Economic Zoology in the Winter term.

For further details see the fuller description of these courses under the Course in Biology. While students in Agriculture devote less time to biological subjects than is required of regular students in Biology, the portions of the work to which they give attention are chosen with especial reference to their needs. The study of the anatomy of domestic animals is furthered by demonstrations from a fine Auzoux model of the horse.

Botany.—For Freshman work in Botany, see page 44.

In the second term of the Junior year, the students examine with the compound microscope the minute structure of the leaves, stems, roots, flowers and seeds of various plants. The accompanying class-room exercises consist of recitations upon, and elaborations of the work pursued in the laboratory.

During the third term the microscopic study of plants is continued, time being taken for making an herbarium of fifty species of flowering plants, named and neatly mounted.

In the second term of the Senior year a course of lectures is given upon vegetable physiology, and laboratory exercises are continued with ferns, mosses, lichens, algæ, etc. During the third term special attention is given to the various kinds of parasitic fungi, including rusts, mildews, moulds and blights so destructive to crops.

Entomology —In the third term of the Junior year Entomology will be taught chiefly by lectures and laboratory practice. Comstock's "Introduction to Entomology" will be used as a text, and during this term a knowledge of the external and internal structure of insects and of their physiology will be given. Especial attention will be paid to those features which have a bearing on the applied or economic side of the science. In the Senior year an outline of the classification will be given, and the orders will be taken up separately; the most injurious insects in each order serving as types. The collection contains examples of these in all their stages, and the laboratory work will be largely directed to the practical handling of and dealing with the insects in all forms. Insecticides and insecticide machinery will be taken up in the last term and the underlying principles of their successful use will be taught.

COURSE IN CIVIL ENGINEERING AND MECHANICS.

During the last three years, the students in this course are instructed in Descriptive Geometry, Analytic Geometry, Railroad Curves, Differential and Integral Calculus, Analytic Mechanics, Hydromechanics, Civil Engineering, Bridge-Building and Geodesy, and have practice two afternoons a week in Draughting, with Exercises and Problems in Geometrical Constructions, in Descriptive Geometry, Topographical, Mechanical and Architectural Drawing and in Graphical Statics.

Students in this course, and in the Chemical and Agricultural Course, in addition to the special and technical studies of their course, pursue such studies in English, Rhetoric, Elocution, French, German, Metaphysics, Moral Philosophy, the Duties of Citizenship and the Natural Sciences as are calculated to make them broadly educated and intelligent citizens, and not mere narrow specialists.

COURSE IN CHEMISTRY.

During the last three years, students in this course are instructed in General, Experimental and Agricultural Chemistry, Crystallography, Blowpipe Analysis, Determinative Mineralogy, Analytical, Organic, Applied and Theoretical Chemistry.

The course of study depends, to some extent, upon the student's future pursuit in life.

Experimental Chemistry is taught in the recitation-room by carefully conducted quizzes and full work in the

laboratory. The student's first and general knowledge of chemistry is obtained by his own observation.

Blowpipe Analysis comprises the study of the various reactions and the analysis of a number of substances. The laboratory work is accompanied with constant quizzing in the recitation-room.

General Chemistry is taught from a text-book fully illustrated by experimental lectures, during two terms of the Sophomore year. An endeavor is made to make the student understand the sure basis of fact on which the science of Chemistry rests, and to reason for himself from these facts. He is also taught to make a careful distinction between facts and theories, and not to confound that which is proved with that which is merely speculative.

Organic Chemistry begins in the third term of Sophomore year, so that students looking towards Agriculture and Biology, as well as Chemistry, can get some idea of the chemical changes connected with their prospective subjects before more detailed study comes. The general behavior of carbon in its compounds is considered, and the different classes it forms, as well as their relations, are studied so that the fundamental chemical changes concerned in the growth of plant or animal can be properly understood by students in these courses.

In the first and second terms of Junior year the subject is continued by those in the chemical course, and then the development becomes more detailed. The student is con-

stantly questioned and expected to show a thorough knowledge of all principles developed in the text-book. He also is given imaginary problems and taught how to plan an investigation with carbon compounds, thereby gaining a theoretical knowledge of the methods of research in this subject. Laboratory work follows in the Senior year.

The lectures are accompanied by full experimental illustrations.

Analytical Chemistry.—The chief object of a scientific course is to teach how to study nature, how to put questions, how to interpret the answers. So the student commences with experiments on bodies of known composition, performing those experiments that characterize common, simple substances, until he is perfectly familiar with the reactions, both theoretically and experimentally, the theoretical part being considered in the class-room. Then complicated bodies are examined, until most difficult substances are readily analyzed, and the student is ready for

Quantitative Analysis, which is taught in a similar way. The student first analyzes substances of known composition until perfectly familiar with the peculiar manipulation in this subject. Then he proceeds to substances of unknown composition. Through one College year, instruction is given, with recitations and questionings during the first term.

At the end of the year, the student has gained a knowl-

edge of Analytical Chemistry sufficient for all ordinary purposes, and therefore, in the Senior year, he can profitably take up such special branches as may seem best for him.

Stoichiometry, the mathematics of chemistry, is taught by lecture, recitation and blackboard drill. During the course, a large number of problems is given for solution, special attention being paid to those occurring in technical work.

Applied Chemistry.—The application of Chemistry to the arts and manufactures is taught by lectures and text-book. Whenever it is practicable, the actual products are exhibited to the students, and the manufacturing processes reproduced in miniature. Attention is drawn to the scientific relations and connections between the various manufactures. The great losses by imperfect methods of manufacture and by waste products are pointed out, and the student is taught to see the true economy of production. Illustrative of the lectures, visits are made to various manufacturing establishments, of which there are a number in and about New Brunswick, and an opportunity is given to see manufacturing operations in actual working.

Principles and Theories of Chemistry having recently developed in a very remarkable way, form a most important branch of Chemistry. Accordingly, the subject extends throughout the Senior year. The instruction begins with a discussion of the atomic weights and the general

chemical properties of gases. Then liquids and solids are considered from a chemical point of view, particular attention being paid to chemical action in solution. The course is so arranged that at the end students have a clear idea of modern chemical thought.

Owing to the exceedingly careful observations required, few experiments can be performed in the class-room, but the student is encouraged to become more familiar with the subject by experiments at his desk.

After finishing experimental organic chemistry, the student takes up work for his thesis chosen by him, but subject to the approval of the instructor.

MINERALOGY is taught in the Junior year. In the second term there is a course of lectures in Descriptive Mineralogy, in which the general characters of minerals are discussed, and some of the most important species are carefully studied. Special attention is paid to CRYSTALLOGRAPHY, as being one of the most distinguishing characteristics, and therefore much used in Determinative Mineralogy, which occupies the third term. In this part of the course the student learns to make the tests by which minerals are distinguished from each other, and becomes familiar with their differences by actual handling and comparison. In this course use is made of the College collections, supplemented by the private collection of the Professor in charge.

Geology is studied in the first and second terms of the Senior year. A text-book is used, but each lesson is explained in advance and fully illustrated by the use of specimens, with which the College is abundantly supplied.

COURSE IN ELECTRICITY.

This course is nearly the same as that in Engineering, Physical Laboratory practice being substituted for Railroad Curves, Bridge-Building and Geodesy, and for part of the afternoon work in Draughting. This preparation enables graduates to take such positions as do not demand the full mechanical and mathematical equipment of a professional electrical engineer. And those who intend to pursue Electrical Engineering after graduation are furnished with the necessary practical basis. Manual skill and preference for mechanical details are prime requisites for electrical pursuits, hence, those who enter the course will be required to do the most exact work possible, and expected to show cheerful patience in tedious manipulations.

The Physical Laboratory is provided with engines, motors, dynamos and testing apparatus.

COURSE IN BIOLOGY.

Students electing this course must divide their time nearly equally between three departments, viz.:

ANIMAL BIOLOGY, first and second terms; BOTANY, second and third terms; ENTOMOLOGY, first and third terms. Agricultural and Classical electors follow the same general subjects as the Biological electors for corresponding terms. The course is recommended as introductory to medical studies or special biological branches of education or investigation.

Department of Animal Biology.—Human Anatomy, Physiology and Hygiene is a required study during the first term, Freshman year. Instruction is given by means of lectures, demonstrations, charts and Auzoux models. The aim is to make the student see the importance of a knowledge of lower forms of life to a comprehension of human biology. Students applying for advanced standing should offer satisfactory evidence of the mastery of such a text-book as Martin's "The Human Body" (Briefer Course), or its equivalent.

Zoology is a required study during the second term, Freshman year. The method of instruction is by means of lectures and demonstrations of charts, specimens and models, Some laboratory work is done in the class-room. The object is a general survey of the great groups of animals, their general structure and affinities, which may serve as introductory to the study of Historical Geology pursued later, and also may enable the student to appreciate the more popular biological discussions of to-day. Those who enter higher classes without pursuing this course must give satisfactory evidence of mastery of Orton's "Comparative Zoology" or some work on zoology of at least equal grade.

The elective work begins in the Junior year with General Biology. This is mainly in the Laboratory, and is pursued by means of microscope and scalpel. The student sketches and describes the objects studied. Supplementary lectures are given. Each student provides himself with Parker's "Lessons in Elementary Biology" and a small

case of instruments. Other apparatus, microscopes and materials are provided in the laboratory, for which a fee is required. The following subjects are studied in the order mentioned:

1. *General Biology of Plants.*—First half, Fall term, Junior year. Topics: Fermentation (Yeast), Fungi (Mucor, Penicillium), Bacteria, Algæ (Pleurococcus, Hæmatococcus, Spirogyra), Chara, Moss, Fern, Alternation of Generations in Higher Plants.

2. *Biology of Invertebrated Animals.*—Second half of Fall term, Junior year. Topics: Protozoa (Amœba, Vorticella, etc.), Cœlenterates (Hydra, Hydroids, Sponges), Echinoderms (Starfish), Vermes (Earthworm, etc.), Molluscs (Oyster, Clam, Snail), Arthropoda (Lobster).

3. *Biology of Vertebrates.*—Winter term, Junior year. Topics: Fish, Frog, Turtle, Pigeon, Mammal (Cat or Dog).

4. *Embryology.*—Fall term, Senior year. The subject of Comparative Embryology is introduced by a practical study of the development of the hen's egg, artificial incubation being used. This course is intended, also, to supplement the work on Invertebrate Biology of the Junior year.

5. *Osteology.*—Fall term, Senior year. The subject of Comparative Osteology is introduced by a detailed study of the skeletons of the domesticated animals.

6. *Comparative Anatomy.*—Winter term, Senior year. Vertebrate Anatomy, introduced by the careful dissection of a mammal, is now offered as supplementing the Vertebrate Biology of the Junior year.

7. *Histology.*—Winter term, Senior year. In connection with the careful dissection of a mammal, the histological and technical training previously gained is now greatly extended by a special microscopical study of sections of the various organs.

8. *Economic Zoology.*—Winter term, Senior year. The principles previously acquired are now applied to practical questions, and such topics as the Laws of Heredity and of Stock Breeding are discussed in a way to show how abstract truths can be subjected to economic application.

Botany.—The study of Botany, two hours a week, begins in the third term of the Freshman year, and the ground covered is embraced by "Gray's Revised Lessons." In connection with the text-book work, each student makes drawings and descriptions of leaves, stems, roots and other parts of plants. This is followed by a thorough study of the flower from living specimens gathered in the field. The terms used in Descriptive Botany are dwelt upon so that each member of the class becomes familiar with the methods of determining the botanical names of plants, and acquaints himself with the relationships of genera and orders.

Laboratory study in Botany begins in the second term

of the Junior year, and students then pursue a course in vegetable anatomy with the compound microscope, in which they are introduced to the various kinds of tissues and tissue systems as illustrated in the leaves, stems and roots of the higher plants. In the third term, laboratory practice is continued with the histology of the organs of reproduction, and the collecting of plants in the field begun. Each student prepares an herbarium of at least fifty species, all neatly mounted and fully labeled.

The Seniors, in their second term, have a course of lectures upon Vegetable Physiology, special attention being paid to the origin of varieties through cross-fertilization and other causes. In the laboratory, each member of the class becomes familiar, microscopically, with the histology of cryptogams, particularly those best enforcing the principles in Physiology considered in the class-room. The third term is specially devoted to a consideration of those low organisms that are so obscurely known under the general term of the fungous diseases of plants, and embracing one branch of Economic Botany, now called Vegetable Pathology.

Entomology.—In the third term of the Junior year, Entomology will be taught, chiefly by lectures and laboratory practice. Comstock's "Introduction to Entomology" will be used as a text, and during this term a knowledge of the external and internal structure of insects and of their physiology will be given. Especial attention will be paid to the morphological and biological side of the science. In the Senior year the system of classification will be given,

and the students will be required during laboratory hours to prepare, classify, and arrange collections, in part made by themselves. A very full collection of the insects of the United States will assist in acquainting the student with the family types. The aim will be to give such a knowledge of the subject as a whole, as will enable the student to specialize without further assistance should he desire to continue the study at the conclusion of the course.

MILITARY DEPARTMENT.

This department is in charge of the Professor of Military Science and Tactics, an officer of the regular army, detailed by the War Department for the purpose.

Instruction is both practical and theoretical.

PRACTICAL.—The student, on entering College, is drilled in the School of the Soldier, including bayonet exercise, and is advanced, successively, to the Schools of the Company and Battalion.

Considerable attention is given to target practice, the College being supplied with latest-model Springfield rifles and a liberal supply of rifle ammunition.

THEORETICAL.—During the Junior and Senior years, elementary instruction, by means of lectures and recitations, is given in the Art and Science of War, Modern Tactics, Modern Small Arms and Cannon, Explosives, Military Correspondence and Reports, Care of Troops in the Field, Military and Martial Law and other military subjects.

UNIFORM.—A uniform consisting of cap, blouse and trousers of dark-blue cloth, has been adopted, the cost of which is about $14, or considerably less than that of a good suit of civilian's clothes. The entire suit is neat and serviceable, and, while required to be worn at drills, may be worn on any occasion.

MILITARY DRILL is required of all students in the Scientific Department, except as they may be excused by reason of conscientious scruples, physical disability or some similarly valid reason.

In the Gymnasium about to be erected, a drill-room and armory will be provided for purposes of military instruction.

The object of instruction in this department is not only to comply with the requirements of the laws of Congress for the State Colleges organized under the Act of July 2d, 1862, but also to improve the health and physique of students, and to give that elementary military knowledge which every citizen should possess, that he may render intelligent and effective aid to his country or state in case of war or riots.

ANNUAL REPORT OF THE SCIENTIFIC DEPARTMENT.

More extended information as to the studies and courses in the Scientific School will be found in the Annual Report of the New Jersey State Scientific School to the Governor and Legislature of New Jersey, which will be sent to any address on application.

3. ORGANIZATION.

Rutgers Scientific School has been designated by the Legislature of New Jersey, in accordance with the law of Congress of July 2d, 1862,

THE STATE COLLEGE FOR THE BENEFIT OF AGRICULTURE AND THE MECHANIC ARTS.

FREE SCHOLARSHIPS.

Under the law, a certain number of students from the State of New Jersey are received into this department of the College, and educated free of expense for tuition. This law also provides for the appointment by the Governor of a Board of Visitors, two from each Congressional District, who possess general powers of supervision and control. The State pupils are admitted to free scholarships on the recommendation of the Superintendent of Schools in each county, and on passing the required examinations. These free scholarships are distributed among the counties in proportion to their population, as follows:

STATE SCHOLARSHIPS.

Atlantic,	1	Middlesex,	2
Bergen	1	Monmouth,	2
Burlington,	3	Morris,	2
Camden,	2	Ocean,	1
Cape May,	1	Passaic,	2
Cumberland,	1	Salem,	1
Essex,	6	Somerset,	1
Gloucester,	1	Sussex,	1
Hudson,	6	Union,	2
Hunterdon,	1	Warren,	1
Mercer,	2		40

In June, 1888, the Trustees, to express their appreciation of the action of the Legislature in making the first appropriation yet made to further the work of the State College, voted to give to the young men of New Jersey

TEN ADDITIONAL FREE SCHOLARSHIPS "AT LARGE."

By a law passed March 31st, 1890, establishing

A FREE SCHOLARSHIP FOR EACH ASSEMBLY DISTRICT EACH YEAR,

provision is made for affording the advantages of a liberal course of study, free of expense for tuition, in the State Agricultural College to the students in the schools in all parts of the State, who shall be selected as follows: "A competitive examination, under the direction of the City Superintendents and the County Superintendent of Education, in each county, shall be held at the County Court House in each county of the State, upon the first Saturday in June in each year."

The examination will be held on June 3d, 1893, and candidates for Free Scholarships will be examined in the subjects required for admission, as stated on pages 56 and 57.

The law provides that if several properly qualified candidates for appointment pass the examination from the same Assembly District, all who are suitably qualified shall receive appointment to such free scholarships, excess

from certain Assembly Districts being counterbalanced by vacancies in other Assembly Districts, provided only that the entire number of appointees shall not exceed the entire number of free scholarships created by the State.

Letters of inquiry to the President, or to Mr. IRVING S. UPSON, Registrar, will receive careful attention.

THE NEW JERSEY STATE AGRICULTURAL COLLEGE EXPERIMENT STATION.

By the Act of Congress of March 2d, 1887, a law was passed entitled "An act to establish Agricultural Experiment Stations in connection with the Colleges established in the several States under the provisions of an act approved July 2d, 1862, and of the acts supplementary thereto." This act is commonly known as the "Hatch Act," from the active interest taken in its passage by Hon. William H. Hatch, M.C., of Missouri. It authorizes the appropriation of $15,000 annually for the support of Agricultural Experiment Stations in connection with the Colleges which were established in the several States "for the benefit of Agriculture and the Mechanic Arts," by the Congressional Act of July 2d, 1862.

The Legislature of New Jersey, by its acts of March 16th, 1887, and of March 5th, 1888, designated the Trustees of Rutgers College "as the parties to whom all moneys appropriated by Congress under said acts of Con-

gress or supplements thereto shall be paid for the purposes mentioned in said acts of Congress." The department of Rutgers College known as Rutgers Scientific School, is, by law, the State Agricultural College. The Agricultural Experiment Station is established in connection with it.

By the co-operation of the State Experiment Station, a large and well-fitted laboratory has been erected, and investigations are in progress upon the insect enemies of plants, upon the food-products of our fresh and salt waters, and their improvement, upon the geology and chemistry of our soils, and the effect of tillage and fertilizers upon them, upon the diseases of plants, and the application of science to the growth of agricultural and horticultural products, and upon the food consumption and the value of the products of the best five breeds of dairy cattle.

While the main business of such a Station is in searching after new truths, and arranging them for practical and economic use, the proper location for it is in connection with an institution of learning. Almost all our investigators are teachers. The investigation and diffusion of knowledge necessarily go hand in hand; and the example of men devoted to the searching for useful truths is stimulating to those who are yet in their preparatory studies, and are aspiring to fill well their places in life.

It is from those now preparing that our future investigators must come, and it is important that they should have those who are now in the field of work directly before them. In this respect it is believed the location of the Station at the College will be most salutary in its influence.

EXTENSION DEPARTMENT.

The Trustees, desiring to increase the usefulness of the State College, and to give the benefits of liberal training to the people at large who cannot enter the institution as regularly enrolled students, have established a special department, for extension teaching. Under the auspices of this department, lecture courses are given in various localities in the State of New Jersey, by members of the Faculty and other teachers connected with the College, in Agriculture, the English Language, and the various branches of natural and economic science.

The work is conducted chiefly on the plan that has proved eminently successful elsewhere, embodying the following features:

1. LECTURES.—Full courses consist of twelve lectures, delivered generally at weekly intervals, beginning at any time after October 1st, as may be arranged with the places desiring them. Shorter courses of six or more lectures are also furnished if demanded.

2. SYLLABUS AND TEXT-BOOKS.—For every course of lectures a syllabus is prepared, giving an outline of the subject treated and serving as a brief and condensed text-book. Other books for parallel reading are introduced as required.

3. THE CONFERENCE HOUR.—To give those who desire the benefit of personal contact with the lecturer, an hour for informal class-work is held immediately after the lecture, where questions are asked and answered, and where obscure points are further elucidated.

4. The Written Exercises.—To those who attend the conference hour work is assigned, upon which written papers are prepared during the week and mailed to the lecturer for correction and criticism.

5. The Examination.—At the end of a course the lecturer holds an examination, open to all who, besides attending the lectures and conference hours, have performed the required written work.

6. Certificate.—To those who successfully pass this examination, the College awards a formal certificate. This specifies the subject, the date, and the lecturer under whose direction the work has been done.

Full information concerning the courses offered and the lecturers who shall deliver them, the cost of any course, the methods of local organization, etc., will be furnished on application. Inquiries should be directed to the President, or to Professor Louis Bevier, Jr., the Secretary of the Extension Department.

EXAMINATIONS.

The classes in both departments are examined at the close of each term. These examinations are partly oral and partly written, and have an important bearing upon the standing of the student in his class.

Unexpected examinations at irregular intervals are held at the discretion of each instructor. The object of these examinations is to cultivate the habit of considering the

relations of each day's work to what has been done before, and to stimulate effort on the part of each student to gain a comprehensive knowledge of the subjects studied.

At the end of the first and third terms, the examinations of the classes of the Scientific Section are held in the presence of the Board of Visitors, who then make their semi-annual visits to the institution.

At the end of the third term, each member of the Graduating Class of the Scientific Section is required to present a thesis on some scientific subject, a copy of which is written out upon paper suitable for binding, and deposited in the College Library.

The final examination of the Graduating Classes is held four weeks before Commencement, from which time they are subject to such duties as are required for their preparation for Commencement.

Students who receive conditions at the June Examinations must report at College prepared to be examined upon the whole of each of the subjects on which they have conditions, at 10 A. M. on the Tuesday before College opens, in September.

GRADUATION.

To all members of the Graduating Class of the Classical Department, in full standing, the Trustees grant diplomas conferring the Academic degree of Bachelor of Arts.

To all members of the Graduating Class of the Scientific Department, in full standing, the Trustees grant diplomas conferring the Academic degree of Bachelor of Science.

To students, in either Department, who have satisfactorily pursued special courses of study, a certificate is granted stating the studies pursued and the attainments made.

The following regulations have been adopted by the Board of Trustees regarding the graduating exercises at Commencement:

1. The privilege of speaking at Commencement shall be limited to eight men, and shall be open without distinction to the Classical and Scientific Sections of the Graduating Class.

2. The graduating honors shall be as follows:

First Honor, ...	Valedictory.
Second Honor, ...	Latin Salutatory.
Third Honor, ...	Philosophical Oration.
Fourth Honor, ...	Scientific Oration.

3. These honors and orations shall be awarded in the order named, according to grade made up of the combined marks in all the subjects of the course.

4. An oration to be known as the Rhetorical Honor shall be awarded to that member of the class who shall have received the highest grade in Composition and Elocution during the Junior and Senior years, provided he rank in general grade of scholarship among the first half of his class.

In case the Rhetorical Honor shall fall to one who has

also taken one of the four honors for scholarship, an additional speaker shall be appointed according to general grade as fifth in scholarship.

5. Three other orations shall be awarded according to grade in Composition and Elocution, during the Junior and Senior years, provided the recipients rank among the first two-thirds of the class in general grade of scholarship.

On and after Commencement Day in 1894 the following regulations are to govern the assignment of graduation honors and the appointment of speakers at Commencement:

1. There shall be three scholarship honors in each section of the Graduating Class, awarded to those students who shall stand first, second and third respectively, in all the required studies of the Classical or Scientific curriculum, provided that in each individual case the student so standing shall rank among the first four in the major subject or subjects of his elective course.

2. There shall be no distinction by way of comparison between the scholarship honors of the Classical School and those of the Scientific School.

3. The three scholarship honors of each School shall be designated as follows:

CLASSICAL SCHOOL.	SCIENTIFIC SCHOOL.
First Honor—Philosophical Oration.	First Honor—Scientific Oration.
Second Honor.	Second Honor.
Third Honor.	Third Honor.

4. An oration to be known as the Rhetorical Honor shall be awarded to that member of either section of the

class who shall have received the highest grade in Composition and Elocution during the Junior and Senior years, provided he rank in general grade of scholarship among the first half of his class in all of the required subjects of the Classical or Scientific curriculum.

A student may receive either one of the three Scholarship Honors and the Rhetorical Honor, but he shall deliver only one oration at Commencement.

5. Two other orations shall be awarded according to grade in Composition and Elocution during the Junior and Senior years, provided the recipients rank among the first half of either section in general grade of scholarship in all of the required subjects of their curriculum.

DEGREES AND POST-GRADUATE STUDIES.

The degrees of A.M. and M.S. are no longer given "in course," but only for work done.

The Faculty will recommend for the degree of Master of Arts or Master of Science candidates otherwise properly qualified, who, after taking the appropriate Bachelor's degree—

1. Shall pursue for at least one year at Rutgers College a course of liberal and non-professional study, approved by the Faculty, and shall, beside the term examinations, pass a thorough examination on that course and present a thesis on some topic connected with it; or,

2. Who, not less than three years after taking the Bachelor's degree at Rutgers College, shall make application for the Master's degree, presenting at the same time a cer-

tificate of graduation from a Theological Seminary, a Law School or a Medical School, or of admission to the practice of Law or Medicine ; or,

3. Satisfactory evidence by thesis or otherwise of successful labor in education or literature pursued during three consecutive years and of advanced studies prosecuted ; or,

4. In case of Bachelor of Science, satisfactory evidence of successful professional work actually done and advanced professional studies prosecuted.

The degrees of Ph.D. and Sc.D. may be conferred upon resident graduates of the College who shall pursue for two years prescribed courses of study under the direction of the Faculty.

The conditions will be made known on application.

The degree of Civil Engineer is a professional one, and is, on application, conferred upon graduates of the College who have taken the degree of Bachelor of Science, and subsequently have passed three years in the practice and study of engineering, with results satisfactory to the Faculty.

The applicant is required to furnish a statement of the work upon which he has been engaged, and to present a thesis or discussion of some engineering work which he has done. The application and thesis must be presented to the Secretary of the Faculty at least one month before Commencement.

REGULATIONS.

Morning prayers are attended in the College Chapel each morning, except Saturday and Sunday, at 8:40 o'clock.

A Bible-Class is held Sunday morning in the College Chapel at 9:30 o'clock. Students are required to attend it.

A sermon is preached every Sunday morning in the College Chapel at 10:30 o'clock. Students are required to be present.

They are expected, also, to attend public worship in the afternoon or evening, at such place as their parents or guardians may direct.

No student is allowed to leave the city during term time without permission from the President or the Registrar.

Excuses for absence from all College duties must be obtained from the Registrar.

Unexcused absences are reported to the Faculty; and a student is not allowed to make up the recitations omitted, but receives zero as a mark.

Recitations (except in cases of "Electives") are marked on a scale of 100, and the average standing of each student is made up at the end of each term, and sent to his parent or guardian. A mark at examination counts as much as one-third of the term's work up to the time of examination.

If the grade of a student in any term falls below 60 per centum of the maximum in one of his studies, he is

conditioned in that study, and must be re-examined therein.

If the average of any student in any study at any time falls below 60 per centum of the maximum grade, his case must be acted on as the Faculty shall deem necessary.

If any student's average grade in any term falls below 60 per centum of the maximum, he loses his standing in his class, and is required to fall back a year in the course. If his work is not satisfactory after a month's trial here, he is dismissed from College.

Marks given in ELECTIVE work do not enter into the computation of grade; and the only official report of work done in Electives is the announcement, at the end of each term, in each student's report, that he has "failed" or "passed," or "passed with honor," in each of his elective courses.

If any student is found to be notably deficient in his daily recitations, or at the examination in any of his studies, his case is reported to the Faculty, and such action by way of discipline is taken as may be deemed necessary.

No student can be promoted to an advanced class until all his deficiencies are made up; and if he fails to make up all his deficiencies before the opening of the College year, he ceases to be a member of his class. Examinations for making up such deficiencies are held on the Tuesday before the opening of the Autumn Session in September, at 10 A. M.

COLLEGE EXPENSES.

FEES.

Tuition, per annum,	$75 00
Incidentals—Janitor, Fuel, Reading-Room, per annum,	10 00
Admission Fee,	5 00
Graduation Fee,	7 50
Analytical Chemistry, extra, per term,	15 00
Electricity, extra, per term,	10 00
Biology, extra, per term,	5 00

Of the above expenses, the admission fees are payable on entrance, to the College Treasurer; the incidental expenses are payable at the beginning of the first term, in September; of the tuition fees, one-third, viz., $25, is payable within ten days after the beginning of each term. All checks should be made payable to the Treasurer of Rutgers College.

Students in the Scientific Courses are required to procure sets of draughting instruments, costing from $10 to $20. They are advised to defer the purchase of these instruments until entering College, as they will then have the advantage of procuring them under the direction of the Professor of Draughting.

Students in Analytical Chemistry are charged $15 additional a term, for chemicals and use of laboratory, which amount must be paid within ten days after the beginning of the term. They are also expected to provide themselves, at their own expense, with the necessary sets of ap-

paratus, which may be obtained from the regular apparatus dealers, or from the Laboratory Supplies department. These sets are retained through the year, but at the end of it, if the owners do not wish to keep them, they will be purchased at a fair price. If proper care has been exercised, a small discount only (about 10 per cent.) from the original cost will be made. All breakage will be charged in full.

Students in the Electrical Course are charged $10 extra, a term, throughout the Junior and Senior years, for the use of laboratory and apparatus, which amount must be paid within ten days after the beginning of the term. They are also expected to provide themselves, at their own expense, with files, pocket magnifiers and towels. All damage to College apparatus will be charged in full.

Students in Biology are charged $5 extra, a term, for the use of instruments and laboratory, which amount must be paid within ten days after the beginning of the term.

Students in the Classical Course, electing Physics, are charged $5 extra, a term, for the use of the laboratory and apparatus, which amount must be paid within ten days after the beginning of the term.

BOARD.

Board, with furnished room, can be obtained in New Brunswick at the present time for $4 to $7 a week; board without rooms for $3 to $5 a week. Students having the ministry in view may obtain rooms in Hertzog Hall, in the Theological Seminary, free of charge. These rooms are heated and lighted.

The Faculty are empowered to pass such regulations relative to the number of boarders in each house as they think proper; and students shall board only at such places as are approved by them.

By combining in clubs, students are able to reduce somewhat their expense for board.

Free scholarships and pecuniary assistance may be given to young men of approved character and ability, whose family circumstances are such as to make this assistance necessary. No deserving student who has shown perseverance and capacity is allowed to give up his course for lack of assistance.

DORMITORY—WINANTS HALL.

The late GARRETT E. WINANTS, Esq., of Bergen Point, N. J., a Trustee of the College, gave to the College a handsome and spacious Dormitory, which is located on the west side of the Campus, fronting the east. The colonial style of architecture was adopted, in harmony with Queen's building, and combining with the dignity of an academic structure the hospitality and homelikeness suggested by the American mansions of the latter part of the last and the beginning of the present century.

DIMENSIONS.—The building is 145 feet long by 65 feet wide, the center portion being 40 x 72 feet. It is four stories high, with basement and ample cellar.

MATERIALS.—The basement and first story are of Newark or Belleville brownstone, with rock-faced, regular-coursed ashlar; the columns of the recessed porches, the

cornices and other trimmings, are of cut stone. Above the first story the walls are of red Trenton pressed brick; the pilasters and main cornice and facings of dormer windows are of buff Roman brick with terra-cotta enrichments. In the pediment of the center building the coat of arms of the Reformed Church and the legend of the College,—"*Sol justitiae et occidentem illustra*," 1766,—are modeled in terra-cotta, and over the main entrance the name of the building is carved in stone. The steep roofs are of slate, the deck being surrounded by a balustrade. The floors are double and deafened; all the corridors and halls are of maple; the dining, reception and students' rooms, of yellow pine. The doors and trimmings are of white and yellow pine, finished in natural colors, without paint. The stairways are of oak. The walls are of plaster, of yellow-toned color. Handsome mantels and wainscoting of yellow pine are in the main hall and assembly and dining-rooms. A clock has been placed at the top of the building.

Arrangements of the Hall.—The main entrance is a broad Loggia or recessed porch, and there are also entrances at both ends of the building. On the first floor is a spacious hall, with a broad stairway as a central feature, and fire-places of Roman brick at either end, the intervening spaces being furnished for reception of visitors. The dining-room, 37 x 36 feet, is in the rear of the hall, and connected with it is a large assembly-room, 47 x 26.3 feet. These two rooms can be used together for Alumni dinners and other social and public occasions; ample serving-rooms, pantries, etc., adjoin the dining-room.

STUDENTS' ROOMS.—The building accommodates 120 students. The rooms are arranged in suites of a study and two single sleeping-rooms, for two room-mates, and there are a few single rooms. Special attention is given to light, ventilation and sanitary appliances, and to the necessary quiet retirement and privacy of the students. These rooms occupy portions of the first and fourth, and the whole of the second and third stories.

The kitchen and laundry, stewards' and servants' apartments are in the fourth story, thus securing the proper isolation and management of the employes, and freedom from the odors and other inconveniences of basement kitchens. Dumb-waiters and private stairways extend from the cellar to the fourth story. Ample provision is made for fire-escapes and other securities against accidents.

The entire building is heated by steam, which can be made available for other purposes if deemed desirable. Bath-rooms, lavatories, linen closets and store-rooms are on each floor.

The large study-rooms are each furnished with two study tables and two chairs. The bed-rooms are each furnished with a solid oak set, consisting of bedstead (springs and mattress), bureau, washstand and two chairs. The remaining furniture, such as sheets, pillows, pillow-cases, coverlids, towels, bowl and pitcher, etc., are to be supplied by the occupant. The schedule of prices for single rooms and suites of rooms, heat and gas light included, will be furnished upon application.

In drawing for choice of rooms, the order of classes will be followed, precedence being given to the Seniors.

Any person drawing a suite of rooms may choose his associates from any of the classes. Rooms are to be taken for the full year, unless specially released. Rent is payable in advance, one-third at the beginning of each term. Agreement to pay rent is for the entire suite, and must be signed by the student who draws it, or his guardian. Rooms may be occupied from the Monday preceding the opening of the College year to the Saturday following Commencement.

The drawing for choice of rooms for the year 1893–'94 will take place in the Registrar's office on Wednesday, June 6th, 1893, at 2:30 P. M.

BOARD.—A matron who has had long experience and is known for her competency, has been engaged to assume the management of the building so far as the care of the rooms and the furnishing of board are concerned. The charge for board for the present year to the students is $3.75 a week.

BENEFICIARY AID.

A student who is preparing for the ministry of the Reformed Church in America and who needs pecuniary assistance, may be placed on one of the Beneficiary Funds which the Trustees hold in trust for the purpose; *provided*, that he engage to pursue his studies uninterruptedly until he shall have completed his theological course in one of

the theological schools under the care of the General Synod of the Reformed Church in America, in accordance with the requirement of said Church, Art. 2, Sec. 2.

All who are placed on these funds receive $150 annually.

1. Van Benschoten Fund.

This fund, the gift of the Rev. ELIAS VAN BENSCHOTEN, in 1814, amounting to $20,813, was given in trust jointly to the General Synod of the Reformed Church and the Trustees of Rutgers College, to aid in the education of indigent students for the ministry. The students who enjoy the benefits of this fund are appointed by the Trustees of the College on the nomination of the General Synod of the Reformed Church.

2. Knox Fund.

This fund, consisting of $2,000, was given by Mrs. REBECCA KNOX, of Philadelphia, in 1815, to the Trustees of Rutgers College, the income from it to be expended for the support of one student in the Theological Seminary.

3. W. H. Smock Fund.

WILLIAM H. SMOCK, of Marlboro, N. J., left by his will, to the Trustees of Rutgers College, the sum of $500, to be invested as a fund, the interest of which should be used to aid in the education of young men for the ministry. This legacy was received in 1859, and has been duly employed since that time for the purpose named.

4. Mandeville Fund.

In 1865, the Trustees of Rutgers College received from the executor of the will of WILLIAM MANDEVILLE, of New York City, the sum of $2,000; said sum to be invested and the income thereof to be applied to the support of a theological student in the College.

5. Voorhees Fund.

ABRAHAM VOORHEES, of Franklin Park, N. J., bequeathed by his will $26,000 to the Trustees of Rutgers College, the income of which is to be expended in aiding worthy young men who are candidates for the ministry, while pursuing their studies in Rutgers College.

6. The Brownlee Memorial Fund.

This fund consists of $2,000, the income of which is to be used for purposes of ministerial education. It was given in 1891 by Mrs. WILLIAM A. BLOODGOOD, of New York, in memory of her father, the late Rev. WILLIAM C. BROWNLEE, D.D., who was at one time Professor of Languages in the College, and afterwards for many years an active and efficient Trustee.

7. Free State Scholarships.

The law of the State of New Jersey granting to the Scientific Department of Rutgers College the Agricultural College Endowment, provides for the education of forty State students free of expense for tuition. These scholarships are distributed among the counties in proportion to

their population, and the appointments to fill vacancies are made by the County Superintendents. The appointment gives the right to a course of instruction of four years in Rutgers Scientific School, to students successfully passing the entrance examinations.

The Trustees of the College, in 1888, voted ten additional scholarships "at large" for students from New Jersey in the Scientific School.

By a law of the State passed March 31st, 1890, a free scholarship for each Assembly District each year is established. See pages 82, 83, 84.

8. Board of Education.

The Board of Education of the Reformed Church grants aid to young men preparing for the ministry in the denomination. The conditions are that the persons receiving aid shall have been members of some Evangelical Church one year, and at the time members of some Reformed Church. The aid may be obtained either while in College or in the Theological Seminary.

At present the amount given is $150 per annum. Information may be had by addressing the Secretary of the Board, 25 East 22d street, New York City.

9. Rooms for Students.

Such rooms in Peter Hertzog Hall as may not be required for the use of the students of the Theological Seminary, are allowed to be occupied by the students of the College who have the ministry in view, and on the same conditions as the members of the Theological Seminary, *i. e.*, free of charge.

HONORS AND PRIZES.

In every case where it is expected that a prize will be awarded for work done, it is distinctly announced that unless in the opinion of the examiners the work submitted is of such excellence as to merit a prize or prizes, no prize will be awarded.

All prizes and honors are open equally to members of the Classical and Scientific Departments, except in cases where prizes are specially limited to one department by the donor. Each competitor for a prize must sign a written declaration that the essay or other work offered by him is his original and unaided work. The essays are to be written on a paper of a prescribed kind, and the successful essay is to be deposited in the College Library, before the writer is entitled to the prize.

1. HONORS.

1. Honors in Elective Studies—(In Effect on and After Commencement Day in 1894).

Department or Individual Honors may be granted in each elective subject. Of these there are two in each Classical course, and one in each Scientific course. Such an honor will be granted to that student who stands highest in the particular elective subject, on two conditions:

1. Provided that he stand in the first third of the Classi-

cal or Scientific Section of his class in the required studies of his course; and,

2. Provided that he be recommended to receive that honor by the Professor or Professors who have instructed him in the elective subject or subjects.

Competition for individual or department honors shall begin where the courses begin to diverge, *i. e.*, with the first term, Junior year, in the Classical Department, and with the first term, Sophomore year, in the Scientific Department.

2. Honorable Mention for Work outside the Course done Without Reference to a Prize.

For the encouragement of independent reading and study and original investigation, under the direction of the Faculty, honorable mention is made of students who give evidence of thoroughness in such work, and pass a satisfactory examination.

Hobart Earl Studley, of the Class of 1893, receives honorable mention for work done and examinations passed in German, minimum requirement, 300 pages.

John Henry Carnes, Charles E. Conover, Robert Kitching Painter and Alexander Brokaw Way, all of the Class of 1895, receive honorable mention for work done and examinations passed in French, minimum requirement, 500 pages.

2. PRIZES.

1. Suydam Prize for Composition.

This prize, the gift of JAMES SUYDAM, Esq., is a gold medal of the value of twenty-five dollars, or that sum in money, and is to be given to the member of the Senior Class who shall write the best English Composition on the subject assigned to the class by the Professor of Rhetoric. Competitors must hand in their compositions on or before April 20th. Subject for 1893: "Thomas Reid's Philosophy; its Distinctive Features and Influence."

2. Suydam Prize in Natural Science.

This prize, the gift of JAMES SUYDAM, Esq., is a gold medal of the value of twenty-five dollars, or that sum in money, and is to be awarded to the member of the Senior Class who shall have made the greatest attainments in Natural Science. The examination is upon all the subjects of Natural Science in the College course, and is conducted by the Professors in those subjects. The questions and answers are required to be written.

3. Brodhead Classical Prize.

This prize is the gift of Rev. Dr. JACOB BRODHEAD and his son, J. ROMEYN BRODHEAD, LL.D. It is the interest on $500, *i. e.*, twenty-five dollars, to be given to the best Senior Classical scholar, on the following conditions:

First. "That those who offer themselves as candidates for it shall be subjected to a special examination, at a time

to be fixed by the Faculty near the close of the Senior year."

Second. "That the subject of the examination be a passage or play of some classical author (not included in the College programme of studies), to be selected by the Classical Professors, and to be announced at least one month before the time fixed for the examination."

Third. "A subject for an essay shall be announced at the same time, and the essay shall be given in on the day of examination."

Fourth. "Both the examination and the essay shall be taken into account in the adjudication of the prize. A law copy of the essay of the prize-man shall be handed in by him before the medal is put into his hands, to be preserved among the archives of the College."

(*a*) Subject of Essay to be written in Latin, not less than ten (10) thesis pages: "The Influence of the Stoic Philosophy on Roman Legislation."

(*b*) Text for Examination in Latin: Cicero, De Natura Deorum, Book II.; Cicero, De Legibus, Book I.; Digest, Titles I., 1 (De Iustitia et Iure), and L., XVII. (De Diversis Regulis Iuris).

4. Bradley Mathematical Prize.

This prize was established by the late Hon. JOSEPH P. BRADLEY, LL.D., Class of 1836, and is maintained by his son, CHARLES BRADLEY, Esq., of the Class of 1876. It consists of a valuable Mathematical work, which is to be bestowed on the student of the Senior Class who shall pre-

sent the best solution of a set of Mathematical problems to be proposed to the class by the Professor of Mathematics before the close of the second term.

5. Myron W. Smith Prizes.

These prizes were founded by LYNDON A. SMITH, M.D., of Newark, in the name of his son, Adjutant MYRON W. SMITH, who was a graduate of the College, and who gave his life in the late war to the cause of his country. They consist of the interest of $500 (twenty-five dollars), proportionately appropriated to two medals, one of gold and the other of silver, which are to be awarded respectively to the best and second-best speakers of the Sophomore Class. Only those students who shall have pursued, in the College, the regular studies of the classical or a full scientific course from the beginning of the Freshman year, shall be allowed to contend for these prizes.

The competition for these medals shall take place before a committee of the Faculty, when the best and second-best speakers shall be selected, to whom the medals shall be awarded, and six others shall receive honorable mention in their order of excellence. The medals shall be presented at Commencement.

6. Tunis Quick Prize in Spelling and English Grammar.

This prize, the gift of the late P. VANDERBILT SPADER, Esq., of New Brunswick, is the income of $300, at 5 per centum, and is to be presented to that member of the Freshman Class, Classical or Scientific, who shall pass the best examination in Spelling and English Grammar.

The examination is to be conducted in writing by the Professor of English Literature, at as early a day as convenient in the second College term, and under such regulations as the Faculty may from time to time establish.

The prize may be withheld from any and all papers offered, either for want of merit or for failure of proper competition. In case the prize be not awarded in any year, it is to be offered one year later to the members of the same class, on the same conditions as at first.

All regulations as to time, manner and conditions of awarding the prize, are subject to change by the Board of Trustees.

7. Peter Spader Prizes in Modern History.

These prizes, the gift of the late P. VANDERBILT SPADER, Esq,, are two in number, the income of $400 and $300, respectively, at 5 per centum, and are to be awarded to those members of the Sophomore Class, Classical or Scientific, who shall present the best essays on some subject in Modern History, selected by the Professor of History, with the approval of the Faculty.

The subject is to be announced at the close of the Freshman year, and the competing essays are to be handed in on or before the last Monday in May of the Sophomore year.

The committee annually appointed by the Faculty may decline to award these prizes, or either of them, for want of merit in the essays, or for failure of proper competition. In case the prizes be not awarded in any year, they are to be offered one year later to the members of the same class, on the same conditions as at first.

All regulations as to time, manner and conditions of awarding the prizes are subject to change by the Board of Trustees.

Subject for 1893: "The Rise and Development of our Postal System."

8. Appleton Memorial Prize in Moral Philosophy.

This prize was founded by a gift of $500, from the Rev. SAMUEL E. APPLETON, D.D., in the name of his mother, Mrs. ELIZABETH APPLETON. It consists of twenty-five dollars, the interest of the above sum, and will be given "to the member of the Senior Class who shall pass the best examination in Moral Philosophy."

9. Bowser Engineering Thesis Prize.

A prize consisting of a valuable Engineering work is given by Professor E. A. BOWSER, LL.D., to that member of the Engineering Section of the Senior Scientific Class who shall present the best thesis upon some Engineering subject at graduation.

10. John Parker Winner Memorial Prize in Mental Philosophy.

This prize consists of twenty-five dollars, given by JOHN WINNER, Jr., and his wife, in memory of their deceased son, JOHN PARKER WINNER. It will be open to competition for students in both the Classical and Scientific Sections who are pursuing the study of Mental Philosophy, and will be bestowed on the one who shall pass the best examination on some work assigned by the Professor of Metaphysics.

Work for 1893: Berkeley's Principles of Knowledge, Dr. Krauth's Edition, pages 72–122 and 193–281.

11. William H. Van Doren Prize for the Best Essay on Christian Missions.

This prize consists of twenty dollars, the gift of the Rev. WILLIAM H. VAN DOREN, D.D. It is open to competition for members of the Senior and Junior Classes in both sections, and for members of the Theological Seminary.

Subject for 1893, essay limited to 3,000 words: "Missions in China."

12. Junior Exhibition.

Eight members of the Junior Class are chosen each year, in equal numbers from the Peithessophian and Philoclean Literary Societies, who deliver original speeches at an exhibition held on the Tuesday evening preceding Commencement. The selection is made by a committee of three persons, of whom one is chosen by each Society and a third by the Faculty and is based upon relative excellence as writers and speakers.

A prize of twenty-five dollars, the gift of RALPH N. PERLEE, Esq., of New York City, is awarded by a special committee at the time of the exhibition to that orator who shall be adjudged the best writer and speaker among the contestants.

The Board of Trustees have adopted the following regulation concerning the Junior Exhibition, viz.: That after the Commencement of 1893 the eight speakers for the Junior Exhibition shall be chosen, on account of their

abilities in Composition and Elocution, from the entire Junior Class in the regular course, without regard to membership in the Peithessophian or Philoclean Society, by a committee appointed for that purpose by the Faculty.

13. Hart Prize in English Literature.

A prize of twenty-five dollars is offered to the members of the Sophomore Class for the best essay upon a subject in Literature; the theme is assigned by the Professor of that Department, and the prize is awarded by a committee appointed by him.

Subject for 1893: "John Keats."

14. The Bussing Prizes for Extempore Speaking.

Mrs. Ann Bussing, of New York City, has given to the College $1,000, the income of which (fifty dollars per annum) is to be expended each year for books, which shall be selected by the President of the College, and given as follows: The First Prize, of thirty dollars, to that member of the Senior Class who shall prove himself to be the best extemporaneous speaker; the Second Prize, twenty dollars, to the second-best extemporaneous speaker of the Senior Class. The prizes are to be awarded by the Faculty of the College, or by a committee whom they shall name, and shall be awarded after a public debate to be held in the latter part of the College year. In awarding the prizes, "strict attention shall be given to logical and forcible presentation of thought, full and accurate information as to matters of fact, and grace and effectiveness in delivery."

For the sake of training students in the clear expression of intelligent thought upon matters of public interest, each class has an exercise in extempore speaking twice in each term. The subject is announced to the class, and, after five minutes for thought, the members of the class discuss the subject or debate the question before a committee.

15. Van Vechten Prize—Essay on Christian Missions.

A. V. W. VAN VECHTEN, Esq., of New York, has founded, in honor of his mother, the late LOUISA VAN VECHTEN, and his father, Rev. Dr. SAMUEL VAN VECHTEN, a prize of sixty dollars, by the gift of $1,000, the prize "to be given annually to that student of Rutgers College who shall be adjudged by the Faculty of the Theological Seminary of the Reformed Church of America, at New Brunswick, to have presented an article, original with himself, and the best submitted—the most conclusive and inspiriting to strengthen faith in and love for Foreign Missions." Essays limited to 3,000 words, to be presented on or before May 1st of each year.

Subject for 1893: "The Prospects of Christianity among the Mohammedans."

16. The Class of 1876 Prize Fund for the Encouragement of the Study of Political Philosophy.

The Class of 1876 have given to the College five hundred dollars ($500) as the foundation of a Prize Fund (which they express the hope that they may increase from time to time, until it shall be sufficiently large to establish a Fellowship), for the encouragement of the study of

Political Philosophy. The income of this fund is to be awarded each year "to that member of the Senior Class (either Classical or Scientific) who shall be adjudged entitled to it, * * * on the basis of an original essay on some subject in Political Philosophy, assigned by the Professor of that science in the College, and upon a competitive examination in a text-book also selected by him;" the committee of award to consist of "three competent persons selected by the Faculty of the College, at least one member of the committee to be a member of the Class of 1876 as long as any may be living."

(*a*) Subject of essay for 1893: "Our National Legislature as Developed by Colonial Experience."

(*b*) An Examination on Frothingham's "Rise of the Republic."

17. Upson Prize in American Literature.

For the encouragement of study in American Literature, a prize of fifty dollars is offered by the Librarian, to be awarded by a committee appointed by him, to that member of the Junior or Senior Class who shall write the best essay upon a subject assigned by him, and upon the following conditions:

First. The essay, of not more than 5,000 words, must be presented in writing upon the standard thesis paper of the College, with the understanding that the original copy is to be preserved in the College Library.

Second. Each competitor must sign his essay with a fictitious name, according to the general rules of the College, and hand it to the Librarian on or before May 1st, 1893.

Third. The prize may be withheld from any and all papers offered, either for want of merit or for failure of proper competition.

Subject for 1893: "The Place of John Lothrop Motley among American Men of Letters."

18. The Bradley Prize in Roman Law.

This prize was founded by the Hon. JOSEPH P. BRADLEY, late Associate Justice of the Supreme Court of the United States, and is maintained by his son, CHARLES BRADLEY, Esq. It consists of a valuable work on Roman Law.

The subject of the essay for 1893 will be: "The Roman Law Respecting Injuries to Person, Property and Reputation."

The examination upon text will include Justinian's Institutes, lib. IV., tits. 3, 4, Dig. lib. IX., tit. 2, and Dig. lib. XLVII., tit. 10.

The prize may be competed for by Seniors and Juniors.

19. The Class of 1866 Prize for Attainments in Electrical Science.

The Class of 1866, being the Centennial Class after the grant of the first charter, has established a prize of fifty dollars, to be awarded to that member of each graduating class who has taken a full course leading to the degree A.B. or B.S., including the higher mathematics and physical laboratory practice, and who has shown, in the judgment of the Faculty, the greatest degree of proficiency in the science of Electricity.

A special examination, conducted by an appropriate committee of the Faculty, will be held Saturday, May 20th, 1893, at 2 P. M., to select the recipient of the prize. If, in the opinion of the committee, none of the competitors deserve the prize, it will be withheld.

20. The Delta Phi Senior Orator Prize.

A prize of twenty-five dollars is offered by the Epsilon Chapter of the Delta Phi Fraternity to that member of the Senior Class who shall write and pronounce the best English Oration.

The basis of award of this prize shall be as follows:

Essays shall be written upon any one of certain subjects designated by the Faculty and submitted to a committee thereof.

From these essays, the best, not to exceed five in number, shall be chosen, and their writers having given these essays such form as may best suit the purpose, shall pronounce them in public before a committee appointed by the Faculty, who shall thereupon adjudge the prize.

21. The Luther Laflin Memorial Prize in Metaphysics.

This prize consists of $100, given by LUTHER LAFLIN KELLOGG, Esq., of New York City, in memory of his grandfather, LUTHER LAFLIN, deceased.

It will be open to students of the Junior Class in both the Classical and Scientific sections, and will be bestowed on the one who shall pass the best examination on some work assigned by the Professor of Metaphysics.

Work for 1893: "Text-Book to Kant. The Critique of Pure Reason: Æsthetic, Categories, Schematism. Translation, Reproduction, Commentary, Index." By James Hutchinson Stirling, LL.D.

22. Barbour Prizes in Speaking.

These prizes, two in number, of the value of $15 and $10 respectively, are offered by the Instructor in Elocution. The eight members of the Freshman Class of either section in regular course who shall stand highest in Elocution during the entire year may compete before a committee appointed by the Faculty.

The date and conditions of trial and award will be announced during the second term.

LIBRARY.

The Library of the College, containing 28,000 volumes, is open for consultation during each term as follows: On Mondays, Tuesdays, Wednesdays, Thursdays and Fridays, from 8 to 8:40 A. M., and from 12 M. to 12:50 P. M., and from 2 P. M. to 4:30 P. M.; on Saturdays from 9 A. M. to 12:50 P. M., and from 2 to 4:30 P. M. Students are allowed free access to the books, and are encouraged to become familiar with the proper methods of using a library for literary work.

In 1887, the late P. VANDERBILT SPADER, Esq., of New

Brunswick (a member of the Class of 1849), gave to the College his personal library, valued at $15,000, and consisting of about 5,000 books, among them many very valuable art volumes, and collections especially rich in State and local history, and in books of reference. By his will the College has received $10,000, the income of which is to be expended for the maintenance and increase of the P. Vanderbilt Spader Library Gift.

By the gift of a permanent fund of $1,000 from JAMES SUYDAM, Esq., supplemented by gifts from other sources, the library is supplied with the leading periodical publications in the various departments.

By the courtesy of the Theological Seminary of the Reformed Church, the Sage Library of more than 40,000 volumes is opened to the students of Rutgers for consultation; and under certain limitations books are drawn from it as well. It is within four minutes' walk of the College campus.

MUSEUM AND APPARATUS.

The Trustees solicit contributions from the friends of the College to the collections of the Museum. It is their wish to increase greatly the present valuable collections by additions in all departments. Donations of specimens illustrating Geology, Mineralogy, Natural History, Numismatics and Antiquities, and the Industrial Arts, are earnestly requested. Ample rooms are provided in Geological Hall for the proper preservation and display of such speci-

mens. By the kindness of numerous friends, suitable cases have been provided to receive the collections which the College already possesses, and they are now being arranged as rapidly as circumstances will allow.

During the past year valuable additions have been made as follows: From Professor DAVID MURRAY, LL.D., a collection of minerals and Japanese curiosities; from FREDERICK A. CANFIELD, Esq., '70, a collection of zinc minerals from Missouri; from JOSEPH A. VAN MATER, '80, a set of cores from the diamond drill holes bored at Franklin, N. J., and which well exhibit the geological formation of that region. Professor CHESTER'S private collection of minerals has also been deposited in the museum and adds greatly to the material for illustrating the lectures in Mineralogy.

The apparatus of the College for illustrating the various branches of science is extensive and serviceable. It has been obtained as the wants of the classes demanded, and comprises many recent additions to the Engineering, Chemical and Philosophical apparatus. The students in Analytical Chemistry are provided with the requisite facilities for making analyses. The arrangements for these departments in the buildings recently erected are of the most ample and convenient description.

The Thomas L. Janeway, M.D., Memorial Collection

to illustrate Classical Archæology, is the gift of the heirs of Dr. THOMAS L. JANEWAY, of the Class of 1863.

It already includes (1) eight casts from marbles typical of the chief periods in the history of sculpture. These

casts were manufactured by Brucciani & Co., of London. (2) Five hundred casts from engraved gems (cameos and intaglios) and coins, Greek and Roman. These were selected with an eye both to the study of the development of the art and to the especially full illustration of its best achievements. The workmanship on these casts is that of Augustus Ready, of the British Museum. (3) Eight hundred stereopticon slides, of which all but eighty-two were made by the well-known Levy, of Paris. (4) One thousand photographs and restorations. Among the photographers are Bonfils, of Beirût; Sommer, of Naples; Anderson, of Rome; Mansell, of London; Lombardi, of London; Quaas, of Berlin; Hautecœur, of Paris, etc., etc.

The collection, made in Europe by a member of the College Faculty, is designed to illustrate the topography, art, life and literature of Ancient Greece and Rome, and for this purpose is used constantly by College classes.

CATALOGUES.

Former students of the College, whether graduates or not, are earnestly requested to keep the College informed of any change in their address or occupation, of works published, offices held, etc., both to facilitate the sending of the annual catalogue, and to furnish material for general catalogues, when printed. Catalogues of the College, etc., will be sent to alumni or friends of the College who send to the Registrar their addresses, for this purpose.

REGISTER.

1. SOPHOMORE ORATORS, CLASS OF 1894.

PHILIP COOK THOMAS. CHARLES MORISON DIXON.

The following are named in the order of their appointment according to merit:

OTTO LEOPOLD FREDERICK MOHN.
HOLMES VAN MATER DENNIS, JR.
EDGAR IRELAND MCCULLY.
WILLIAM EDGAR COMPTON.
HOWARD DE MOTT.
DANIEL HAND
THOMAS FRENCH RUSSUM.

2. JUNIOR ORATORS, CLASS OF 1893.

JUNIOR EXHIBITION, JUNE 21, 1892.

PEITHESSOPHIAN SOCIETY.	PHILOCLEAN SOCIETY.
ISAAC MESSLER.	HENRY CHARLES CUSSLER.
LOUIS HOWELL METTLER.	RICHARD SWANN LULL.
FRANCIS BAIRD SANFORD.	BURTON STEARNS PHILBROOK.
ALBERT HENRY SCHLIEDER.	ELLIS ROBERT WOODRUFF.

3. GRADUATING EXERCISES, CLASS OF 1892.

COMMENCEMENT, JUNE 22, 1892.

HONORS.

FRANK ROBERTSON VAN HORN, ... Johnsonburg, N. J.
Valedictory, First Honor.

WILLIAM JACOB COOPER, ... New Brunswick, N. J.
German Salutatory, Second Honor.

GEORGE COLFAX BULLOCK, ... Jacobstown, N. J.
Philosophical Oration, Third Honor.

HAROLD LYMAN HOYT, ... New Brunswick, N. J.
Scientific Oration, Fourth Honor.

ROBERT EMMET FARLEY, ... Fort Plain, N. Y.
Rhetorical Honor.

ORATIONS.

JAMES WESTFALL THOMPSON, ... New Brunswick, N. J.
PHILIP MILLEDOLER BRETT, ... Jersey City, N. J.
ROBERT SUMNER WINN, ... Madison, Wis.

MASTER'S ORATION.

CHARLES JUDSON SCUDDER, ... New York City.

4. DEGREES CONFERRED.

Degree of Bachelor of Arts Conferred on Candidates in Course.

WINFRED RUGAN ACKERT,
ALBERT DORRANCE BALDWIN,
JOSEPH FREDERICK BERG,
CLARENCE HORNBECK BONNELL,
PHILIP MILLEDOLER BRETT,
HENRY ROBINSON BRISTOL,
JAMES DICKSON CARR,
THOMAS WESTON CHESTER,
GARRETT MILTON CONOVER,
DRURY WALLS COOPER,
CHARLES EDWARD CORWIN,
HARRY KIMBALL DAVIS,
HARRY THORNTON DAYTON,
CHALMERS PETER DYKE,
ROBERT EMMET FARLEY,
GILBERT TERBELL GALE,
AMOS HOPPOCK HAINES,
JESSE CHARLES HAZZARD,
GEORGE DE WITT KELSO,
ISAAC WILLIAM LOTT,
MITSUYE OI,
HENRY WEMPLE PAWLING,
WALTER TRACY SCUDDER,
WILLIAM CARMAN SHERWOOD,
JAMES BISHOP THOMAS,
JAMES WESTFALL THOMPSON,
FRANK VOORHEES,
ROBERT SUMNER WINN.

Degree of Bachelor of Science Conferred on Candidates in Course.

ANDREW HALL BERRY,
EUGENE BETTS,
HOLMES EARLE BRUERE,
GEORGE COLFAX BULLOCK,
WILLIAM JACOB COOPER,
PETER CONOVER FIELD,
HAROLD LYMAN HOYT,
J. LIVINGSTON RUTGERS MORGAN,
WILLIAM THOMAS MORRISON,
WILLIAM HEULINGS STAFFORD,
FRANK ROBERTSON VAN HORN,
GARRETT SCOTT VOORHEES,
HENRY EDWIN WATERS,
DANIEL GREGORY WRIGHT,
GEORGE HAMPTON WYCKOFF.

Degree of Master of Arts Conferred.

BYRON CUMMINGS, '89,
CHARLES MAAR, '89,
HENRY LIVINGSTON RUPERT, '89,
CHARLES JUDSON SCUDDER, '89,
ELIAS WORTMAN THOMPSON, '89.

Degree of Master of Science Conferred.

HARRY ATWATER SMITH, '87,
JOSEPH SCOTT STILLWELL, '89.

Degree of Civil Engineer Conferred.

EDWARD INGELOW PITMAN, '77,
ALBERT CORNELIUS AREND, '89,
EDWARD HOWELL, '89.

Honorary Degrees Conferred.

A.M.	HON. EDWARD ELSWORTH,	Poughkeepsie, N. Y.
A.M.	HENRY CADMUS STRYKER,	Minneapolis, Minn.
PH.D.	JOHN MILTON BIGELOW, M.D.,	Albany, N. Y.
PH.D.	ELIOT ROBERTSON PAYSON, A.M.,	New Brunswick, N. J.
L.H.D.	HENRY PITT WARREN, A.M.,	Albany, N. Y.
LL.D.	REV. DAVID D. DEMAREST, D.D.	New Brunswick, N. J.
D.D.	REV. CHARLES HUBBARD POOL, A.M.,	Somerville, N. J.
D.D.	REV. JAMES FORSYTH RIGGS,	Bayonne, N. J.
D.D.	REV. JAMES WELLS,	Glasgow, Scotland.
D.D.	REV. JOHN KNOX ALLEN, A.M.,	Tarrytown, N. Y.
D.D.	REV. JOSEPH RANKIN DURYEE, A.M.,	New York City.

5. PRIZES AWARDED.

COMMENCEMENT, 1892.

SENIOR PRIZES.

Suydam Prize for Composition,	James B. Thomas.
Suydam Prize for Natural Science,	Eugene Betts.
Brodhead Classical Prize,	Drury W. Cooper.
Bradley Mathematical Prize,	Harold L. Hoyt.
Appleton Prize for Moral Philosophy,	Isaac W. Lott.
Bowser Prize for Best Engineering Thesis,	George C. Bullock.
Liebig Prize for Best Chemical Thesis,	J. L. R. Morgan.
Bussing Prize for Extemporaneous Debate, 1st,	R. E. Farley.
Bussing Prize for Extemporaneous Debate, 2d,	J. D. Carr.
Class '76 Political Philosophy Prize,	Harry K. Davis.
Van Doren Prize for Essay on Christian Missions,	J. W. Thompson.
Van Vechten Prize for Essay on Foreign Missions,	C. E. Corwin.
Upson American Literature Prize,	J. W. Thompson.
Bradley Prize in Roman Law,	Harry K. Davis.
Class '66 Electrical Science Prize,	Eugene Betts.
Delta Phi Senior Orator Prize,	Harry K. Davis.

JUNIOR PRIZES.

John Parker Winner Memorial Prize for Mental Philosophy,	R. D. Merrill.
Perlee Junior Orator Prize,	A. H. Schlieder.

SOPHOMORE PRIZES.

Myron W. Smith Prize for Declamation, 1st,	Philip C. Thomas.
Myron W. Smith Prize for Declamation, 2d,	Charles M. Dixon.
Hart English Literature Prize,	John H. Thompson.
Spader Prize for Modern History, 1st,	John H. Thompson.
Spader Prize for Modern History, 2d,	John A. Sarles.

FRESHMAN PRIZES.

Tunis Quick Grammar and Spelling Prize,	David Cahart.
Sloan Entrance Examination Prize, 1st,	David Cahart.
Sloan Entrance Examination Prize, 2d,	Herman C. Weber.

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6. CLASS-DAY EXERCISES.

CHAPEL.

President,	R. E. Farley, Fort Plain, N. Y.
Orator,	P. M. Brett, Jersey City, N. J.
Poet,	J. W. Thompson, New Brunswick, N. J.
Historian,	C. P. Dyke, Grand Rapids, Mich.
Presenter of Class Memorial,	G. T. Gale, Bayonne, N. J.
Prophet,	A. D. Baldwin, Newark, N. J.
Address to Lower Classmen,	W. T. Scudder, Tindivinam, India.
Presenter of Mementos,	J. F. Berg, Brooklyn, N. Y.

CAMPUS.

Ivy Orator, ... J. D. Carr, New York City.
Ivy Planter, ... G. D. W. Kelso, Newburgh, N. Y.
Ivy Ode, ... J. B. Thomas, New Brunswick, N. J.
Pipe Orator, ... T. W. Chester, New Brunswick, N. J.
Address to President, . . . H. K. Davis, Amsterdam, N. Y.
Committee, ... W. C. Sherwood, Jersey City, N. J.; G. C. Bullock, Jacobstown, N. J.; W. R. Ackert, Poughkeepsie, N. Y.

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7. RUTGERS CORPS CADETS.

COMMANDANT.

JOHN J. BRERETON,
First Lieutenant, Twenty-fourth U. S. Infantry.

STAFF.

M. F. H. de Haas, *First Lieutenant and Adjutant.*
P. Lindsley, *First Lieutenant and Quartermaster.*
P. B. Hasbrouck, *Sergeant-Major.*
H. M. Waldron, *Quartermaster-Sergeant.*

COMPANY A.

Captain, . . C. H. E. Utter.
First Lieutenant, J. W. Higgins.
Second Lieutenant, C. E. Lovejoy.
First Sergeant, . H. De Mott.
Sergeants, . D. Hand, W. A. Kinsey.
Corporals, . W. V. B. Van Dyck, E. L. Hurley.

COMPANY B.

Captain, . . H. F. Twitchell.
First Lieutenant, F. W. Remsen.
Second Lieutenant, D. H. McLaury.
First Sergeant, . F. B. Van Brakle.
Sergeants, . W. S. Mitchell, T. F. Russum.
Corporals, . J. Wills, A. S. Clark.

COMPANY C.

Captain, . . R. B. Allen.
First Lieutenant, R. S. Lull.
Second Lieutenant, H. V. D. Waldron.
First Sergeant, . A. C. Fox.
Sergeants, . L. L. Wetmore, I. A. Lee, C. F. Berger.
Corporals, . C. Runyon, Jr., R. S. Parsons.

COMPANY D.

Captain, . . E. F. Scattergood.
First Lieutenant, C. S. Chamberlain.
Second Lieutenant, R. S. Conover, Jr.
First Sergeant, . J. V. N. Dorr.
Sergeants, . D. Layton, H. G. Harris.
Corporals, . G. F. Scull, Jr., C. M. Denise.

COLOR GUARD.

Color Sergeant, . L. L. Wetmore.
Color Corporals, J. A. Headley, H. N. Selvage.

DISTINGUISHED STUDENTS IN MILITARY DEPARTMENT.

In accordance with orders of the War Department, on the graduation of every class the names of such students as have shown special aptitude for military service will be reported to the Adjutant-General of the Army and to the Adjutant-General of New Jersey; and the names of the three most distinguished students in Military Science and Tactics will be inserted in the U. S. Army Register and published in general orders.

The names of the students of the Class of 1892 who were so reported to the Adjutant-General of the Army and the Adjutant-General of New Jersey, were:

A. HALL BERRY, Cadet Captain.
P. CONOVER FIELD, Cadet Captain.
WILLIAM H. STAFFORD, Cadet First Lieutenant and Adjutant.

The names of the following will appear in the Army Register for 1893:

G. SCOTT VOORHEES, Cadet First Lieutenant.
WILLIAM H STAFFORD, Cadet First Lieutenant and Adjutant.
A. HALL BERRY, Cadet Captain.

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8. ALUMNI ASSOCIATION.

OFFICERS FOR THE YEAR 1892–'93.

President,	HON. N. W. VOORHEES, '47.
Vice Presidents,	L. BEVIER, JR., '78. REV. C. H. POOL, D.D., '63. REV. J. P. SEARLE, '75. REV. W. J. LEGGETT, '72.
Secretary,	F. P. HILL, '83.
Treasurer,	T. B. BOORAEM, '81.
Necrologist,	I. S. UPSON, '81.
Chief Inspector of Election of Alumni Trustees,	H. A. NEILSON, '73.
Assistant Inspectors,	J. E. ELMENDORF, '78. G. B. FIELDER, '81.
Orator Primarius,	D. BOOKSTAVER, '46.
Orator Secundus,	REV. W. S. CRANMER, '82.

RUTGERS COLLEGE PREPARATORY SCHOOL.

FOUNDED 1766.

E. R. PAYSON, PH.D., HEAD-MASTER.

While the careful preparation for Colleges and Scientific Schools will be the chief aim of this School, attention will also be paid to students desiring to prepare for business.

The number of pupils at the "Home" is limited to forty, and each boy will receive individual attention and care.

LOCATION.

The location of a thorough preparatory school in a city like New Brunswick is most fortunate. On the Pennsylvania railroad, it is easy of access, being only about one hour from New York, and one and one-half hours from Philadelphia. Trains are passing at all hours of the day. The influences of a college town are excellent for intellectual work. Often parents send their sons to be trained in such a town, to cultivate and stimulate a desire for a more advanced course of study.

New Brunswick is a most healthful location.

ADMISSION.

Pupils will be received at any time. It is earnestly urged, however, both for the individual and the class, that pupils enter promptly at the beginning of the year or quarter.

Each pupil will bring with him a certificate of good moral character from the last school he attended, or from the pastor of the church he has attended.

INTERMEDIATE AND PRIMARY DEPARTMENTS.

The work in these departments is designed to prepare boys of the youngest school age for the more advanced work of the school. The number of pupils is limited. Special care is taken in regard to the morals and language of each boy.

The work of these departments will be continued by Miss ESTHER A. ANDREWS, who has, in a marked degree, won the love and esteem of those under her care. Parents can place their boys with Miss Andrews in perfect confidence.

For any further information, address E. R. PAYSON, Ph.D., Head-Master, Rutgers College Preparatory School, New Brunswick, N. J.

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